MEENAKSHI COLLEGE OF ENGINEERING

B.TECH-INFORMATION TECHNOLOGY

INTERNET OF THINGS

LITERATURE SURVEY

EMERGING METHOD FOR EARLY DETECTION OF FOREST FIRE

TEAM ID PNT2022TMID27778

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1. EMERGING METHOD FOR EARLY DETECTION OF FOREST FIRE

INTRODUCTION:

This has a negative impact on the ecology, especially when there is a forest fire, and makes it highly hazardous for animals to stay there. An automated system that can identify any fire situation through any of the alarm systems is needed to prevent such losses. This study examines the development, applications, and momentum of the Internet of Things in the field of firefighting. The article also survey that was carried out to determine research trends and challenges in fire initiatives. The fire Internet of Things(IoT) connects numerous items with organizations within the fire domain as its major objective. Unmanned aerial vehicle (UAV) is a new type of aircraft that has been utilized in the existing system the disadvantages of this paper is based on only smoke image observed from the camera. Sometimes it not detect correctly. So in proposed system we have used color format called YCbCR is a family of color space used to clarify the clear image of fire during forest fire .

3. Reference :

1.Yuan C, Zhang Y M, Liu Z X. A survey on technologies for automatic forest fire monitori fighting using unmanned aerial

vehicles and remote sensing techniques[J]. Canadian Journal of Forest Research, 2015.
2. Piccinini P, Calderara S, Cucchiara R. Reliable smoke detection in the domains of image energy and color[C]. The 15th IEEE International Conference on Image Processing, 2008
3.Tung T X, Kim J M. An effective four-stage smoke-detection algorithm using video images for early fire-alarm systems[J]. Fire Safety Journal, 2011.
4. Toreyin B U, Dedeoglu Y, Cetin A E. Contour based smoke detection in video using wavelets[C]. 2006 European Signal Processing Conference.2006
5. Cucchiara R, Grana C, Piccardi M. Detecting moving objects, ghosts, and shadows in video streams[J]. IEEE Transactions on Pattern Analysis Machine Intelligence, 2003.
6. Cucchiara R, Grana C, Neri G. The Sakbot system for moving object detection and tracking. European Workshop on Advanced Video-Based Surveillance Systems, 2001.

4.Reference:

[1] Ashutha K., Ankitha K., "Smart Shopping cart using embedded system and wireless module", Recent Patents on Computer Science (CSENG), UAE, Vol. 8, pp. 1-6, January2016.
[2] Ashutha K., Shetty Arpitha., ET. Al "Novel wireless data communication for fisherman", International journal of computer science and mobile computing (IJCSMC), Vol. 5, Issue 4, pp. 511- 517, April2016.
[3] Ashutha K., Ankitha K., "Error Minimization in BCH Codes", International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering (IJIREEICE), Vol. 4, Issue 5, pp. 402- 405, May2016

[4] Duy Tran, Weihua Sheng., et.al. : A Hidden Markov Model based driver intention prediction system, IEEE Int. Conf. on Cyber Technology in Automation, Control, and Intelligent Systems (CYBER).pp.115- 120(2015).

5.Reference:

[1] WorldHealthOrganization, “Global status report on road safety
2015,” https://www.who.int/violence injury prevention/road safety status/2015/en/.
[2] World Health Organization, “Decade of Action for Road Safety
2011-2020 seeks to save millions of lives,” http://www.who.int/ roadsafety/decade of action/en/.
[3] F. Wegman, “The future of road safety: A worldwide perspective,”
IATSS Research, vol. 40, no. 2, pp. 66–71, 2017.
[4] World Health Organization, “Save LIVES - A road safety technical package,” 2017.

6.Reference:

[1] A. Zanella *et al*., “Internet of things for smart cities,” IEEE Internet of Things Journal, vol. 1, no. 1, pp. 22–32, Feb. 2014.
[2] Y. Mehmood *et al*., “Internet-of-things-based smart cities: recent advances and challenges,” IEEE Communications Magazine, vol. 55,no. 9, pp. 16–24, Sept. 2017.
[3] K. N. Pallavi, V. R. Kumar, and B. M. Chaithra, “Smart waste
management using internet of things: a survey,” in Proc. International

Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud)
(I-SMAC), Palladam, India, 2017, pp. 60-64.
[4] M. T. Lazarescu, “Design of a WSN platform for long-term environmental monitoring for IoT applications,” IEEE J. Emerging
Sel. Top. Circuits Syst., vol. 3, no. 1, pp. 45–54, 2013.