**Literature Survey:**

**1.Title of the Paper:**

**“Real**-Time Anomaly Recognition Through CCTV Using Neural network”

**Author**: Virender Singha, Swati Singha,

**Year**: Procedia Computer Science 173 (2020) Dr. Pooja Gupta.

This work suggests an approach to spot variation from the norm in real-world CCTV recordings. The normal data alone may not be effective to distinguish abnormalities in these recordings. Therefore, to handle the complexity of these realistic anomalies, both normal and anomalous videos have been considered and hence, maximized the accuracy of the model.

**2.Title of the paper:**

“Efficient anomaly detection in surveillance videos based on multi-layer perceptron recurrent neural network”

**Author**: M. Murugesan, S. Thilagamani

**Year**: 2020

This work uses a Multi-layer Perception Recurrent Neural Network (MLP-RNN) strategy based on anomaly detection classification from a video surveillance system. The information image is pre-processed to empty out the gray-like aspects and the cruel gray cycle function. It outputs higher quality of effective segmentation and realistic complexity with less cost. The set of the segmented image zone does not depend on the gray scale path, its practicality adds the gray scale distribution feature in different zones of the segmented image

**3**. **Title of the paper:**

# “Emerging Methods for Early Detection of Forest Fires Using Unmanned Aerial Vehicles and Sensor Networks”

# Author: G.V.Hristov, Jordan Raychev, Diyana kuchukova

**Year**: 2018(September)

In these early years for the aviation, the use of planes for actual

extinguishing of fires was not so successful, so the focus turned on their use for forest fire detection.The recent advances in the development of the unmanned aerial vehicles (UAVs) provided the possibility to use them in

the fight against the forest fires as a replacement of the piloted aicrafts. Over the years different types and numbers of UAVs have been used and evaluated as solutions for early forest fire detection

**4**. **Title of the paper:**

# “Wildfire detection from UAV collected images using transfer learning”

# Author: Sandra Teneska , Biljana Risteska

# Recently, drones are becoming an increasingly useful asset to firefighters for wildfire monitoring and assessment. In this paper, we try to improve the detection accuracy of fire in UAV collected images from the new FLAME dataset. We propose and evaluate the usage of transfer learning and fine-tuning on several different convolutional neural network architectures. The greatest accuracy score was obtained by fine-tuning the ResNet50 model, reaching 88% or that is an 11% increase. The testing results show that transfer learning significantly helps generalization and that this method exhibits strong potential for real-time application of forest fire detection.

**5**. **Title of the paper:**

“FOREST FIRE DETECTION USING MACHINE LEARNING”

**Author:** Pragati , Sejal Shambhuwani, Piyusha Umbrajkar

. As the technology is developing, Wireless Sensor Networks (WSN) is gaining importance in recent research areas as it has shown its usefulness in warning disasters and save lives. As soon as an unusual event is noticed in the networks, an event is detected through the sensor devices placed at distributed locations. This event detection information is passed to the base station and decision is taken. Due to the static configuration of such sensor data in WSN generally lead to false alarm generation [2]. In such a scenario we can use machine learning algorithms to prevent false alarm since they get configured efficiently in dynamic nature, that too automatically .Therefore for eliminating the static essence of WSN, we present a machine learning algorithm imbibed with WSN. In this paper, we propose a decision tree machine learning approach for detecting events.