

LITERATURE SURVEY ON THE SELECTED PROJECT & INFORMATION GATHERING

Forest fires have been and still are a serious problem for many countries in the world. Currently, there are many alternative solutions to fight forest fires. These solutions chiefly aim to mitigate the harm caused by the fires and exploit strategies for early detection. We refer to most of the projects as detection of forest fire is done automatically with the help of the image processing methods. The principle behind the proposed work is that the image brightness and motion clues are used with the image processing techniques. In many projects, they proposed techniques like “Infrared and thermal cameras” that can see through smoke to monitor ground teams and let them know when conditions change. Fire detection systems for the outdoor environment could be implemented by using specialized cameras, which are able to capture multispectral images. We noticed that the biggest challenge of using this method that arises in these setups is where to place the camera in order to have the best view of the observed territory. And also many of the research and project, for early forest fire detection is still in their development stage. Since these systems have their limitations and provide a stationary point of view, we have decided to investigate a new approach. So we discussed and got some ideas that are related to AI (Artificial Intelligence). Artificial intelligence has become extremely popular in recent years as it has the ability to perform tasks, which are inherent to a human mind. Artificial intelligence sometimes referred to as machine intelligence, is implemented by using neural networks. . UAVs (Unmanned Aerial Vehicles) can provide geo-referenced aerial images, heat maps, and temperature scales of fire zones. We observe that many AI algorithms assess in real time massive amounts of camera and satellite footage and identify smoke and flames. We think that the system could enhance the available platforms for fire detection and we hope that such improvement could significantly reduce the damages caused by untimely or late fire detection.