SRM INSTITUTE OF SCIENCE & TECHNOLOGY

Department of Computer Science & Engineering,

Faculty of Engineering and Technology

Final Year Major Project Work Viva - Voce Evaluation Form

Degree Programme : Btech. Type of Project work (Multi selection permitted)

Software Project

Experimental / Testing Project

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**Question 1. Need of the Project ?**

Answer 1.

Due to rise of anti-social incidents taking place in today's environment, it led to increase protection and monitoring. CCTV cameras already been used to reduce manual monitoring but still there is a need of continuous monitoring. Rate of unusual activity is 20 times a day for developed countries with a population of more than one billion. Continuous efforts required to monitor the surveillance hence increasing the work and man power.

So it provides a requirement to simplify the same. There is a necessity to display which frame represents the irregular component, which allows you to assess the abnormal behaviour more easily. This method includes the way movement effect maps are created that are used for frames and reflect interactions caught in the picture.

Therefore, the most characteristic aspects of the movement impact contours are that the characteristics of the scale, path and subsequently estimates artefacts and their intelligent characteristics are identified with the contours arrangement. It then removes frames with large motions and contrasts them with test frames to auto-detect the global as well as local abnormalities.

**Question 2. Existing Methodology Used?**

Answer 2.

The methodology that was existing is the same that we have used in our project. Before that, there were algorithms like eigen faces or fisher faces,SLR and MLR that helps in defining the movement of the body. But those technologies have not given as accurate output as what these methods have give i.e optical flow of blocks, motion influence generator and creating mega blocks by machine learning.

Though these methods were already used, but the dataset taken were in different way. They trained the system with unusual activity dataset and tested for difference. But we have trained with usual activites as there can be multiple unusual activities as compared to the other.

**Question 3. Parameters Used For the Evaluation ?**

Answer 3.

As the project is based on artificial intelligence and machine learning, we can evaluate using test datasets only and can compare further with the expected results. We have trained and test the project with 3-3 datasets each and it has evaluated accurately. To evaluate it more precisely, we have tested on some random videos too from YouTube which follows the video restrictions of the project . The output was as expected.

**Question 4. Improved Accuracy then existing methodology ?**

Answer 4.

The existing methodology is based on training the machine with unusual activity and further finds to match the frames with the live footage. This methodology works good but there is need to update the machine more often as there are different types of unusual activities made every day. As we can define the usual activities better than the unusual, we trained the machine with usual activity dataset and then asked tried to find the frames different from the usual ne and classify them as unusual.

This change is method led to a better accuracy of the project. But as it is machine learning, other than humans nothing can’t be 100 percent accurate.

**Question 5. future enhancements ?**

Answer 5.

There might be some situations where unusual activities are done with a moving environment for which our project does not work. So there can be more changes made in it to make it supportive.

Also, there can be more different types of unusual activities with which we can train our machine in future.