



# International Journal of Innovative Research in Computer and Communication Engineering

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## Detection of Moving Foreground Object Structure Using Regression Method

Krishnaprasanth.R<sup>1</sup>, Logesh.D<sup>2</sup>, Manimaran.C<sup>3</sup>

UG Students, Department of Electronics and Communication Engineering, Valliammai Engineering College,

SRM Nagar, Kancheepuram, India <sup>1,2,3</sup>,

Professor, Department of Electronics and Communication Engineering, Valliammai Engineering College, SRM Nagar,

Kancheepuram, India <sup>4</sup>

**ABSTRACT:** These regression method provides pixels classification in the video sequence into either foreground(moving objects)or background. These can be achieved through removing background pixels through background subtraction, where each video frame is compared against a reference or background modelpixels which varies dynamically from the background which were considered as the moving objects. In this we proposed the classification model which is based on a small number of correspondences between a candidate value and its respective background pixel model. Then, we explained about its intialization in a single frame. This avoid us waiting for several seconds to initialize the background model, which is quite good advantage for processing image. solutions embedded through digital cameras and for short sequences. Finally, we presented an original update mechanism. Finally ,pixels insertion time were avoided in the model and select a value to be replaced randomly.

**KEYWORDS:** foreground detection, image comparison, matrix construction.

### I.INTRODUCTION

Foreground detection is an futuristic task in may vision-based applications such as video surveillance ,conferencing application, object tracking etc.Intially, foreground objects were detected through modelling background with Gaussian model Recently, foreground object were detected through neural networks (NN) entropy estimation and low-rank model. Although these methods makes good overcome, some problems still remain. Some of the problems are violation of cleantraining set assumption which happens when cameras are installed in busy areas, where training sequence are assumed to contain no foreground objects. These video frames makes difficult in background modelling, through frequent apperance of foreground object in the intial frames which influences the background modelling. second,these also violates the static background assumption by the static background in the video streams.when these both frequently appearing background and dynamic background appears together, these become more challenging to solve the problems.In this we aim to overcome above problems thorough regression method of detection foreground object.

### II. REALATED WORK

“Foreground Detection of Moving Object UsingGaussian Mixture Model” By Nazia Aslam, and Veena Sharma ,IEEE Conference on Communication and Signal Processing, April 6-8, 2017

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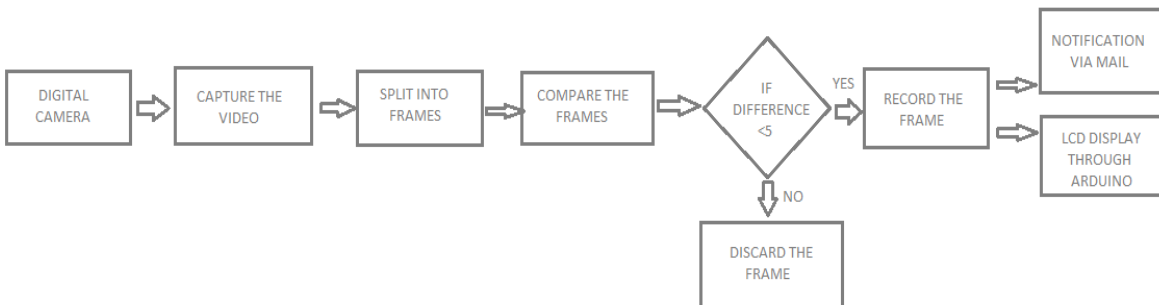
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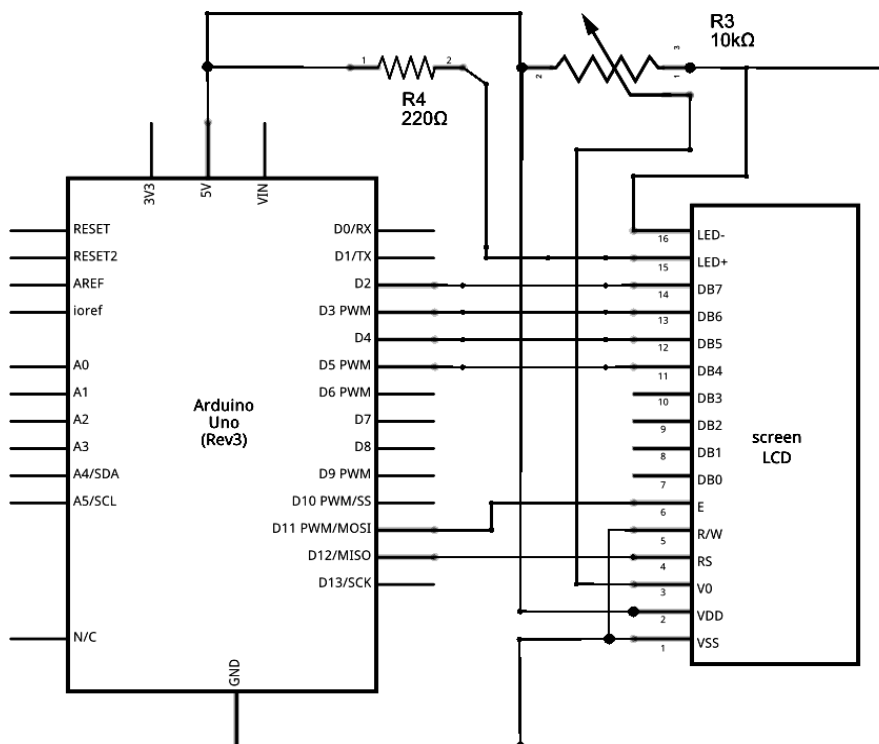
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## III. ARCHITECTURE DIAGRAM

### SOFTWARE SECTION



### HARDWARE SECTION : ARDUINO INTERFACED WITH LCD DISPLAY.



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## IV. METHODOLOGY

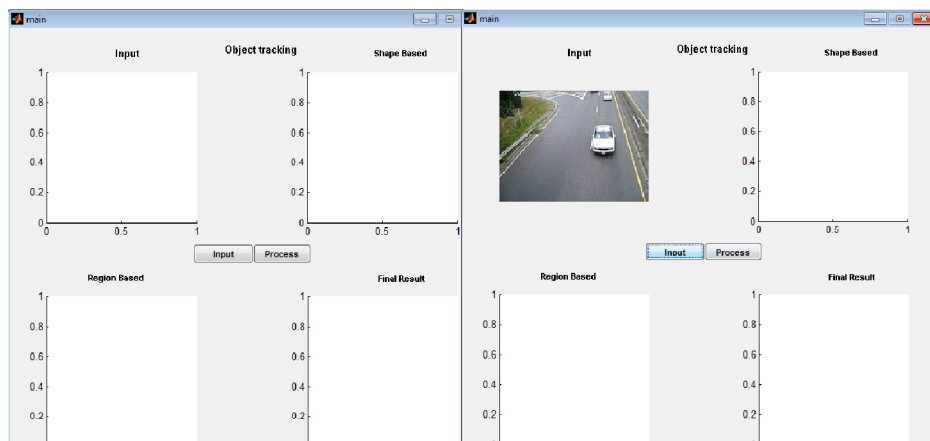
### INPUT MODULE:

In the input module, LIVE video were given as input to the system. Input video were given through a web camera, in order to give better resolution video in the input section. The input video were 720p at 30 frames per second in a wide screen format. It also automatically corrects light. These web cameras were established with good flexibility.



### SOFTWARE MODULE

Get the video from digital web camera. Capture the video. Split the video into frames. Compare the frames sequentially. The difference or threshold between the frames are set to 5. If it is less than 5, discard the frame, or else more than 5, frames were recorded.

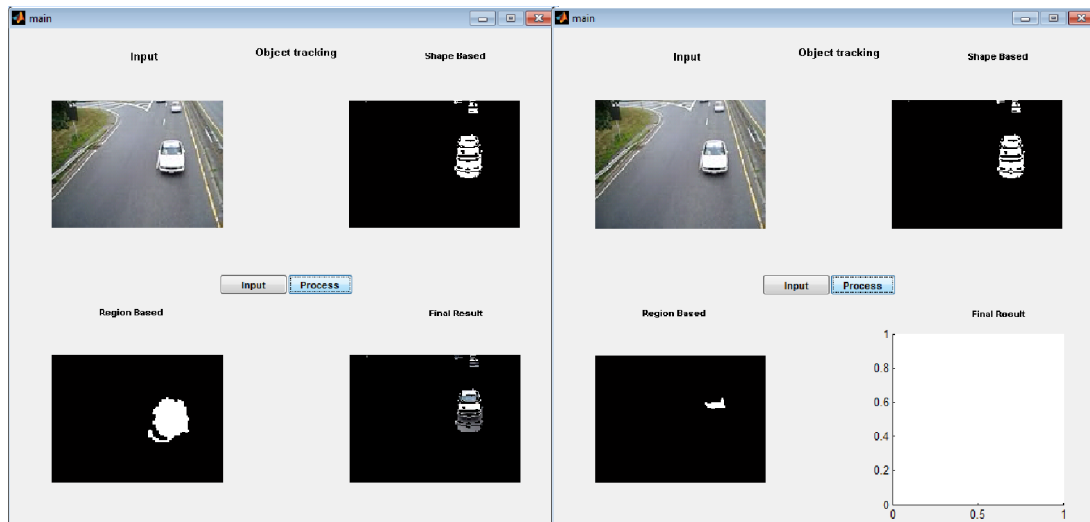


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## OUTPUT MODULE

In the output, Once the moving objects were detected. Once the moving object were detected, output can be shown in lcd display through audino connected through usb interface. Once the moving object were detected, it also gives notification through mail to the users.

## V. CONCLUSION

It enhances the new method of tracking and detecting foreground moving object, these were identified through their colour and spatial information. This method works for both dynamic and static background moving objects. The new solution captures a 24x7 stream of what's happening at a property and provides cloud based streaming and video clip access for 24/7 video recording, bandwidth optimization.

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