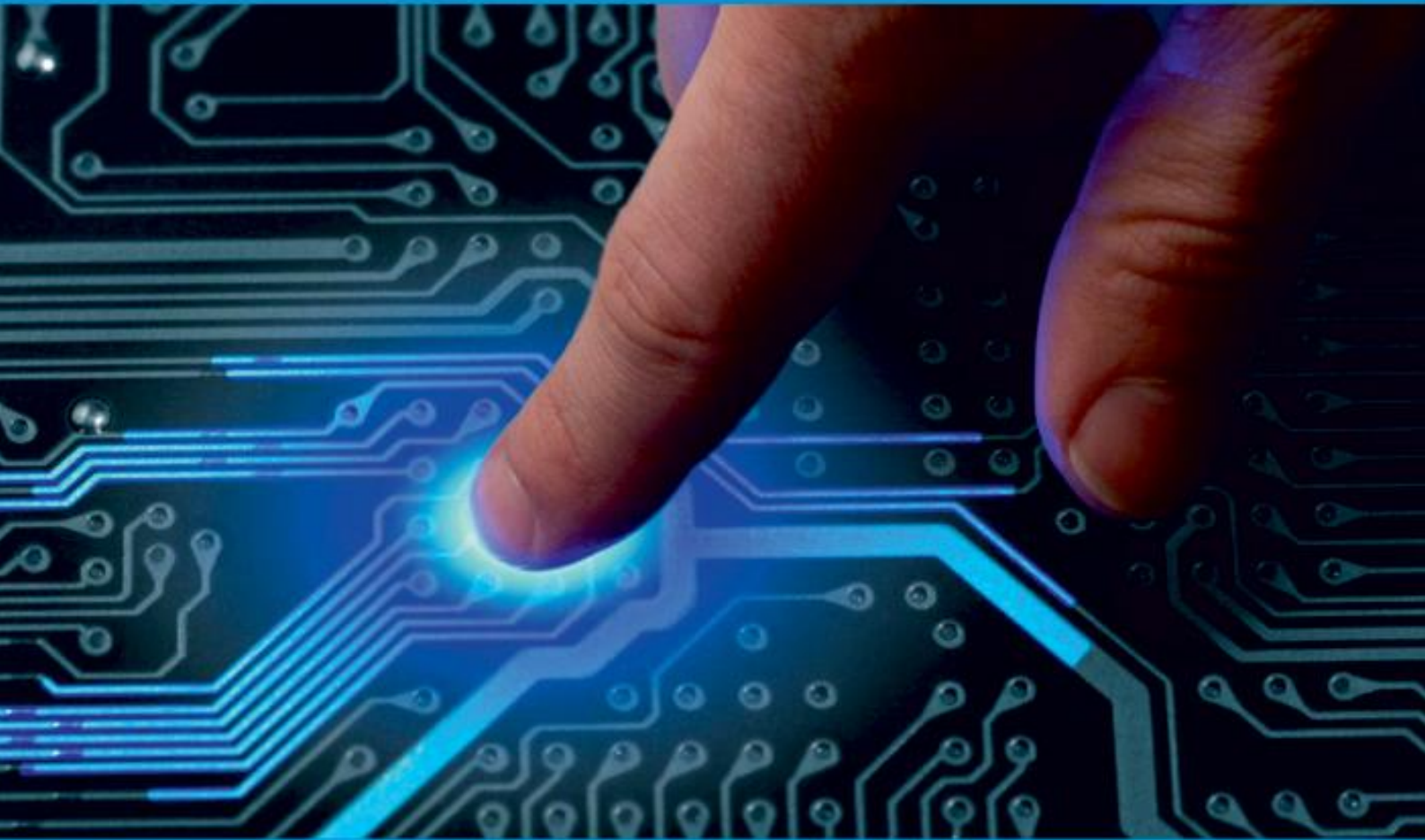




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# Social Distance Detection and Alerting System Using Image Processing

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**ABSTRACT:** Social Distancing is one such terminology that reduce risk of airborne disease like Covid-19, Chickenbox, Influenza. People are forced to maintain a social distance between each other to prevent the spread of airborne disease in public places. We build a simple Social Distancing Detector that could monitor the social distancing in a crowd. Here we are using image processing for object tracking. The distance between people can be estimated and any noncompliant pair of people the alarm will be alerted.

## I. INTRODUCTION

Maintaining the proper social distance is the only way to reduce airborne disease like Covid-19, Chickenbox, Influenza. The WHO announced it 4000 deaths and 118,000 active cases On October 7,2020 due to Covid-19.To stop the virus spread, the global community is looking for alternate ways. The virus spreads when an infected person sneezes, coughs, or talks, Therefore, it is necessary to maintain at least 6 feet distance from others, even if people do not have any symptoms. Here we are ensure that whether people properly maintaining social distance or not.

## II. EXISTING SYSTEM

It was difficult for the machine to determine who is maintaining social distancing and the real world applications were limited. People are not detected from all angles by the current technology. A physical person should be there to observe whether or not the individuals are practicing social distancing. Sometimes human errors also occurs so results are not accurate.

## III. PROBLEM STATEMENT

The risks of virus spread can be minimized by avoiding physical contact among people.To overcome the virus' spread, by minimizing the physical contacts of humans, such as the masses at public places evading crowd gatherings, and maintaining an adequate distance between people. Social distancing is essential, particularly for those people who are at higher risk of serious illness from airborne disease .

By decreasing the risk of virus transmission from an infected person to a healthy, the virus' spread and disease severity can be significantly reduced.

## IV. PROJECT JUSTIFICATION

The objective is to reduce transmission, reducing the size of the epidemic peak, and spreading cases over longer time to relieve pressure on the healthcare.

We all can done this by:

- Social Distancing Detection using Image Processing.
- Social distancing measurement algorithm used to measure the distance between two peoples .

## V. PROPOSED SYSTEM

**Real-Time alert:** If selected, we send an alert in real-time.

**Threading:** Threading removes internal Buffer.

**People counter:** If enabled, we simply count the total number of people.

**Desired violations:** You can also set your desired minimum and maximum violations limits

### PROCESS

**STEP 1:** Object detection from input

**STEP 2:** computing the pair wise distances

**STEP 3:** Check the distance between the peoples.

### EXPECTED OUTPUT

The distance between people can be estimated and any noncompliant pair of people will be alerted immediately using alerting system.

## VI. CONCLUSION AND FUTURE WORK

Using Image processing it is possible to estimate social distancing accurately. The system can control death rate & Spread of Airborne diseases, by ensuring social distancing in public places.

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