

Electric Street Cart with Covid-19 Protocol

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Abstract: *Due to urbanization and industrialization, there is a rapid acceleration of migration from rural to urban area. So urban centers are unable to provide employment to all workforces, so they have to find other opportunities for the settlement in informal sector. Street vendors are often those who are unable to get regular jobs in the remunerative formal sector on account of their low level of education and skills. They try to solve their livelihoods problems through their own meager financial resource. They are the main distribution channel for a large variety of products of daily consumption like fruits, vegetables, readymade garments, shoes, household gadgets, toys, stationery, newspapers, and magazines and so on. If they were to be eliminated from the urban markets, it would lead to a severe crisis for fruit and vegetable farmers, as well as small scale industries which cannot afford to retail their products through expensive distribution networks in the formal sector. Corona virus sickness has become a big public health issue in 2019. The use of a face mask is among the most efficient methods for preventing the transmission of the Covid-19 virus. Consequently, World Health Organization (WHO) advised wearing masks in crowded places as precautionary measures. Because of the incorrect use of facial masks, illnesses have spread rapidly in some locations. To solve this challenge, we needed a reliable mask monitoring system. Numerous government entities are attempting to make wearing a face mask mandatory; this process can be facilitated by using face mask detection software based on AI and image processing techniques. For face mask detection, sanitization and social distancing the approaches mentioned in the article utilize Machine learning, Deep learning, and many other approaches. It will be simple to distinguish between persons having masks and those who are not having masks using all of these ways. The effectiveness of mask detectors must be improved immediately. In this article, we will explain the techniques for face mask detection with a literature review and drawbacks for each technique..*

Keywords: Electric Street Cart

I. INTRODUCTION

Vendors are defined from an economic, cultural and legal position, are those people who offer goods or services for sale from public places, primarily streets and pavements. Street vending is a global phenomenon and the most visible aspect of the informal sector. Street vendors are often those who are unable to get regular jobs in the remunerative formal sector on account of their low level of education and skills They are the main distribution channel for a large variety of products of daily consumption like fruits, vegetables, readymade garments, shoes, household gadgets, toys, stationery, newspapers, and magazines and so on. If they were to be eliminated from the urban markets, it would lead to a severe crisis for fruit and vegetable farmers, as well as small scale industries which cannot afford to retail their products through expensive distribution networks in the formal sector. The importance of this sector cannot be undermined, especially considering that the government does not have the capacity to provide jobs to the millions of unemployed and underemployed people in India. Overall employment in the formal sector is actually declining. This means most people in India have to fend for themselves. People in the informal sector ought to be encouraged to grow and prosper if the governments want to reduce unemployment and poverty in our country. They contribute significant role in local economic growth and development of the urban economies.

Recently India along with almost all big and small countries stated emergency conditions for the novel corona virus (COVID-19). Practically, the whole population of the world is under lockdown and people are maintaining social distances as suggested by the World Health Organization (WHO). This deadly virus has infected tens of laths individuals and continues to spread globally. Across India, persons are losing jobs, working from home, being hospitalized and even vanishing life as a result of COVID-19 infections. Hospitals are experiencing higher than normal patient loads and

treating all patients quickly and effectively now becomes a very challenging task. Due to fear, country-wise lockdown, and suspended OPDs in Hospitals regular patients are also not able to approach doctors.

Precaution is always better than cure. But since there isn't any cure yet available, the only option we are left with is to follow the precautions. And failing to do so may have severe consequences.

Since there is no vaccine yet available in the market, the only way to be safe is by taking precautions. It is suggested to wear a face mask and maintain social distancing to avoid coming in contact with novel corona virus. Studies have proven that masks help in slowing down the spread of infection as the virus mainly gets transmitted with the aerosols which come out of an infected person's nose or mouth while coughing or sneezing. Therefore, we are going to build a Raspberry Pi-based face mask detector which detects whether the person is wearing a mask or not.

II. METHODOLOGY

2.1 Automatic Face Masks Detection

- For the face mask detection task, five different object detection models in the Tensor Flow object detection model zoo were trained and tested on the face mask dataset to compare their accuracy and tested on the face mask detection. The data was spilt into 80% and 20% for training and testing.

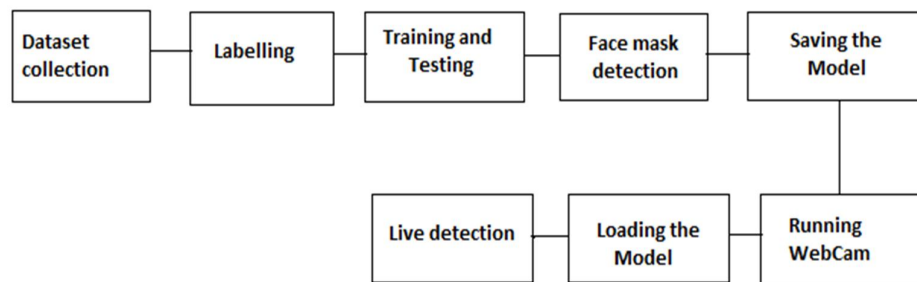
2.2 Social Distancing

- Use digital payment methods wherever possible.
- A distance of 6 feet should be maintained.

2.3 Sanitizing

- Sanitizing means that you are lowering the number of germs to a safe level depends on public health standards or requirements at a workplace, school ext.

III. BLOCK DIAGRAM



IV. CONCLUSION

Street vending is providing employment and income to the rural poor people in urban sector. It provides an important source of earnings, to achieve sustainable development of the city's economy and services to support since covid -19 breakthrough for last two years the earning of the street vendors is completely stopped hence we are building a model of electric cart for street vendors with Covid -19 protocols