FACE MASK DETECTION SYSTEM

MAJOR PROJECT REPORT

Submitted in partial fulfilment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY

in

ELECTRICAL & ELECTRONICS ENGINEERING

by

Shaleen Singh **Pooja Pandey**

Under the Guidance
of
Dr. Parthish Kumar Paul Assistant
Professor

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
DR. AKHILESH DAS GUPTA INSTITUTE OF TECHNOLOGY & MANAGEMENT
(AFFILIATED TO GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI)
NEW DELHI – 110053 JULY
2021

CANDIDATES' DECLARATION

It is hereby certified that the work which is being presented in the B. Tech Major Project Report entitled **"FACE MASK DETECTION SYSTEM"** in partial fulfilment of the requirements for the award of the degree of **Bachelor of Technology** and submitted in the **Department of Electrical & Electronics Engineering** of **Dr. Akhilesh Das Gupta Institute of Technology & Management**, **New Delhi (Affiliated to Guru Gobind Singh Indraprastha University, Delhi)** is an authentic record of our own work carried out during the period from **March 2021 to July 2021** under the guidance of **Dr. Parthish Kumar Paul, Assistant Professor.**

The matter presented in the B. Tech Major Project Report has not been submitted by us for the award of any other degree of this or any other Institute.

Shaleen Singh **Pooja Pandey**

This is to certify that the above statements made by the candidates are correct to the best of my knowledge. They are permitted to appear in the External Major Project Examination.

Dr. Parthish Kumar Paul **Mr. Ajit Kumar Sharma**

Assistant Professor **HOD, EEE**

The B. Tech. Major Project Viva-Voice Examination of **Shaleen Singh, Pooja Pandey** has been held on **19.07.2021.**

Dr. Amruta Pattnaik **Dr. Parthish Kumar Paul** **(Signature of External Examiner)**

Project Coordinator **Project Coordinator**

ABSTRACT

The new Coronavirus disease (COVID-19) has seriously affected the world. The COVID-19 pandemic forced governments across the world to impose lockdowns to prevent virus transmissions. To limit the spread of the disease, mandatory face-mask rules are now common in public settings around the world. Reports indicate that wearing face masks while at work clearly reduces the risk of transmission. Additionally, many public service providers now require customers to wear face-masks in accordance with predefined rules (e.g., covering both mouth and nose) when using public services. These developments inspired research into automatic (computer-vision-based) techniques for face-mask detection that can help monitor public behaviour and contribute towards constraining the COVID-19 pandemic. A hybrid model using deep and classical machine learning for face mask detection will be presented. A face mask detection dataset consists of with mask and without mask images, we are going to use OpenCV to do real-time face detection from a live stream via our webcam. We will use the dataset to build a COVID-19 face mask detector with computer vision using Python, OpenCV, and Tensor Flow and Keras. Our goal is to identify whether the person on video stream is wearing a face mask or not with the help of computer vision and deep learning.

ACKNOWLEDGEMENT

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Shaleen Singh **Pooja Pandey**

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