



FINAL YEAR PROJECT REPORT
FACE MASK DETECTION USING DEEP
LEARNING

In fulfillment of the requirement
For degree of
BS (COMPUTER SCIENCES)

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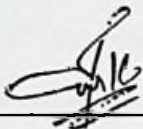
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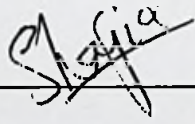
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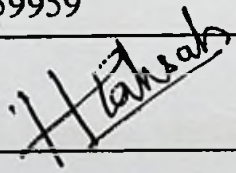
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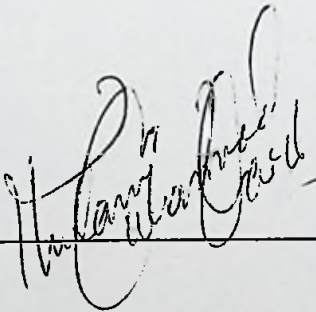
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We certify that this project report entitled “**FACE MASK DETECTION USING DEEP LEARNING**” was prepared by **Zeerak, Shajia and Hafsah** has met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of Computer **Science** at Bahria University.

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FACE MASK DETECTION USING DEEP LEARNING

ABSTRACT

Deep learning will be used in this research to build Face mask detection. To minimise adverse consequences on public health and global economic growth, establishing efficient COVID-19 pandemic control strategies must be given top priority. In the absence of strong antivirals, the WHO recommends a variety of methods to lower infection rates and prevent draining the existing medical resources. One non-pharmaceutical intervention strategy that can be utilised to reduce the main source of SARS-Covid2 droplets released by an infected person is wearing a mask. All nations now require masks over the mouth and nose when in public, regardless of debates over medical resources and the variety of masks available. Our goal is to develop a very precise and real-time system that can effectively identify non-mask faces in public and enforce the wearing of masks in order to contribute to societal health. Several algorithms and strategies have been used to develop numerous face detection models. Deep learning, TensorFlow, Keras, and OpenCV are used in the proposed technique in this work to identify face masks. Given that it uses extremely little resources to install, this model can be utilised for safety-related applications. The SSDMNv2 technique, which is very light and can even be utilised in embedded devices to conduct real-time mask detection, employs the Single Shot Multibox Detector as a face detector and MobilenetV2 architecture as a framework for the classifier. Codeigniter framework is used for the development of CMS portal where CSV parser is used to read and write data in a CSV format.

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