### **FACE MASK DETECTION**

### A project report submitted in partial fulfilment of the requirement For the award for the Degree of

### **BACHELOR OF TECHNOLOGY**

IN

### COMPUTER SCIENCE AND ENGINEERING

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### CERTIFICATE

This is to certify that project report is entitled "FACE MASK DETECTION" was carried outby S BHAGYA TEJA (18811A0559), M TULASI (18811A0542), G RAMYA(18811A0520), K JANI KRISHNA (18811A0535), W VINEET DANIEL (18811A0565), in partial fulfilment of requirements for the award of the degree of Bachelor of Technology in COMPUTER SCIENCE AND ENGINEERING at AVANTHI INSTITUTE OFENGINEERING AND TECHNOLOGY by Jawaharlal Nehru Technological university, Kakinada During the years 2018-2022

(PROJECT GUIDE)

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### ABSTRACT

The end of 2019 witnessed the outbreak of Coronavirus Disease 2019 (COVID-19), which has continued to be the cause of plight for millions of lives and businesses even in 2020. As the world recovers from the pandemic and plans to return to a state of normalcy, there is a wave of anxiety among all individuals, especially those who intend to resume in person activity. Studies have proved that wearing a face mask significantly reduces the risk of viral transmission as well as provides a sense of protection. However, it is not feasible to manually track the implementation of this policy. Technology holds the key here. We introduce a Deep Learning based system that can detect instances where face masks are not used properly. Our system consists of a dual stage Convolutional Neural Network (CNN) architecture capable of detecting masked and unmasked faces and can be integrated with pre-installed CCTV cameras. This will help track safety violations, promote the use of face masks, and ensure a safe working environment.