



**KSIT**  
K S INSTITUTE OF TECHNOLOGY

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# K S INSTITUTE OF TECHNOLOGY

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING **Project work phase 1 (18CSP77)**

### **“Face Mask Detection”**

By Batch 2021\_CSE\_11

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# OVERVIEW

- Coronavirus disease 2019 (COVID-19) has globally infected over 2.5 billion people causing over 5 million deaths.
- Individuals with COVID-19 have had a wide scope of symptoms reported – serious illness.
- Fever, dry cough, tiredness, loss of taste and smell are the major symptoms of coronavirus
- Respiratory problems like difficulty in breathing.
- Elder people having lung disease can possess serious complications from COVID-19 illness as they appear to be at higher risk.

## Cont...

- Many precautionary measures have been taken to fight against coronavirus. Among them cleaning hands, maintaining a safe distance and wearing a mask.
- In order to protect ourselves from the COVID-19 Pandemic, almost every one of us should wear a face mask.
- It becomes necessary to check if the people wear face mask in most public gatherings such as School, College, Malls etc.

# GOALS

- To detect whether a person is wearing a mask properly or not.
- Detect mask with percentage.
- This method will also detect a face along with a mask in motion.

# APPLICATIONS

Can be used in :

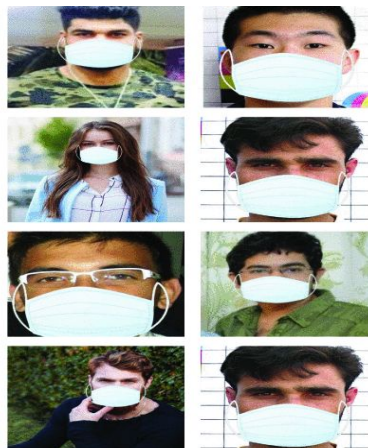
- Schools
- Colleges
- Malls
- Theaters
- Hospitals

# REQUIREMENTS

- Operating system : Windows or Linux
- IDE : Anaconda Navigator
- Language : Python
- Python Libraries
- Images to train
- Webcam

# DATA SET

- Two datasets will be used to implement.
- Dataset will contain two types of data, Dataset 1 consists images with people wearing mask. Dataset 2 consists images with people who do not wear mask.





# REFERENCES

- <https://www.kaggle.com/ashishjangra27/face-mask-12k-images-dataset>
- <https://keras.io/api/preprocessing/image/#imagedatagenerator-class>
- [https://www.tutorialspoint.com/tensorflow/image\\_recognition\\_using\\_tensorflow.htm](https://www.tutorialspoint.com/tensorflow/image_recognition_using_tensorflow.htm)
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- A. Das, M. Wasif Ansari and R. Basak, "Covid-19 Face Mask Detection Using TensorFlow, Keras and OpenCV," 2020 IEEE 17th India Council International Conference (INDICON), 2020, pp. 1-5, doi: 10.1109/INDICON49873.2020.9342585.

**Thank you**