SHREE CHANAKYA EDUCATION SOCIETY'S
INDIRA COLLEGE OF ENGINEERING AND MANAGEMENT
Approved By AICTE New Delhi, DTE (MS) and Affiliated to Pune University (Id-No. PU/PN/Engg/282/2007)

Department of Computer Engineering

Title of Project: ***COVID-19 detection using chest x-ray***

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Objective:

Determine the infection using nonhuman contact method using chest radiographs. To be used in clinical diagnostics for imaging and low cost. The non-contact method with acceptable accuracy is a potential alternative for rapid COVID-19 testing that can be adapted by the medical fraternity considering the criticality of the time along with the magnitudes of the outbreak. To be used as second opinion for doctors. Computer-aided systems employed with deep learning techniques help professionals to make clinical decisions.

Description:

In this system, we are proposing a deep learning method. We are going to use chest x-ray images to predict the infection. Deep learning is the future of the medical industry. In this system, the user will get the result in a few seconds. To predict the infection, we are going to use CNN (Convolutional neural network), ResNet (residual neural network), and VGG-16. Our project will detect the infection spread in the lungs through a chest x-ray which the user will provide. Then the given image will process through the model and give the result. There will be three types of results positive, negative, and viral.

Key Features:

The proposed model is a non-contact process of determining whether a subject is infected or not and is achieved by using chest radiographs. We used CNN, ResNet, VGG-16 to predict the results.

Software Requirements:

Sr.No.	Software Component	Details
1.	Operating System	Windows 7 and Above
2.	Technology	Python, Flask, Web application
3.	IDE	Anaconda

Hardware Requirements:

Sr.No.	Component	Details
1.	Processor	Core i3 And Above
2.	Memory	RAM:4GB, HDD:512GB

Project Snap Shot: