



Attended Me

Automated Attendance System

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AI Introduction

Around the world, automated attendance systems are frequently employed. Stakeholders can select between two types of attendance systems



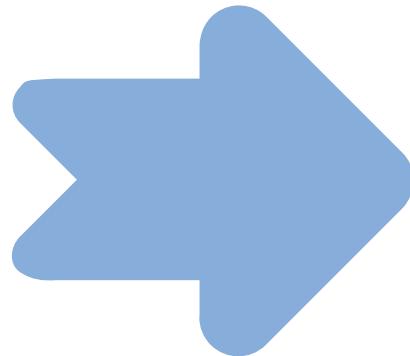
Manual Attendance



Automated Attendance

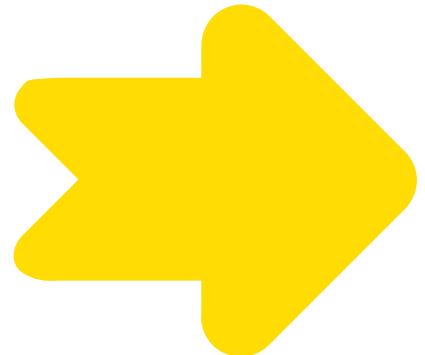
AI Problem Statement

Manual Attendance



- Manipulation of data
- Human mistake is a possibility.
- Time and Speed

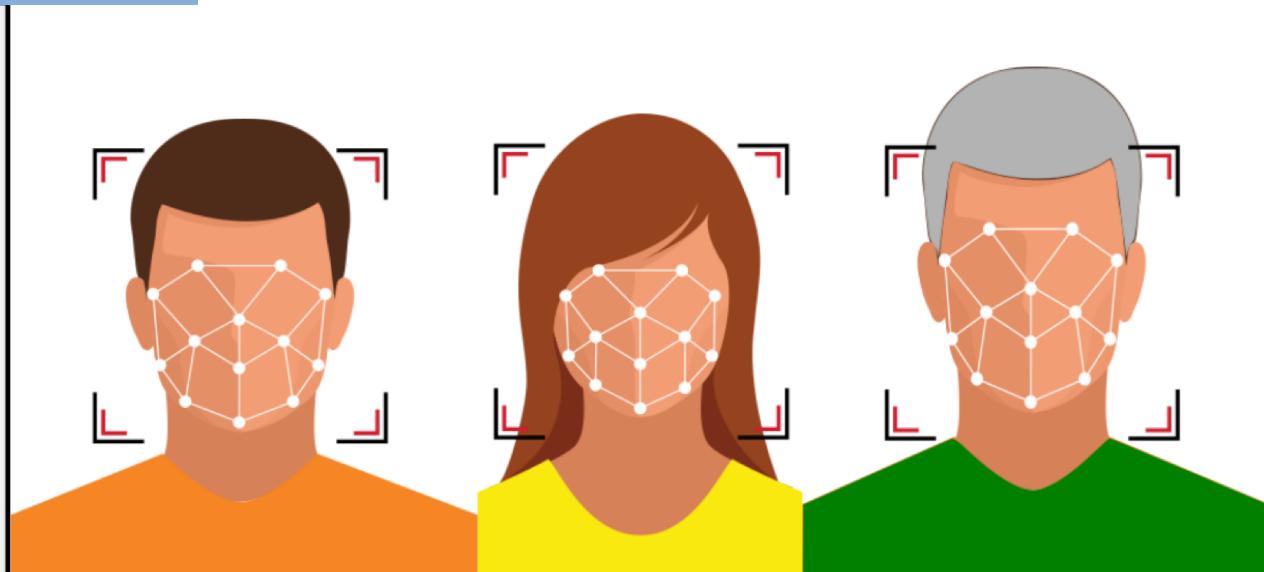
Automated Attendance



- Maintenance is required.
- To function, it requires a power supply.
- COVID-19 transmission through the fingerprint is simple.

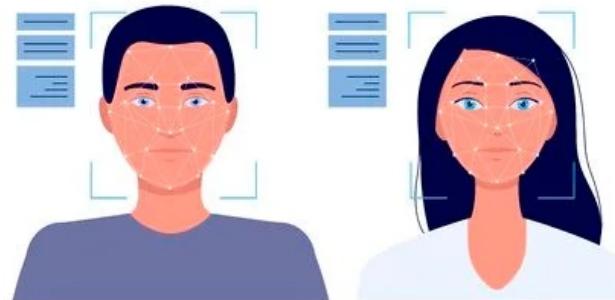
Solution

Attended Me is an artificial intelligence-based attendance system that works by scanning a person's face to authenticate their identity and determine their emotional state.



AI Goals

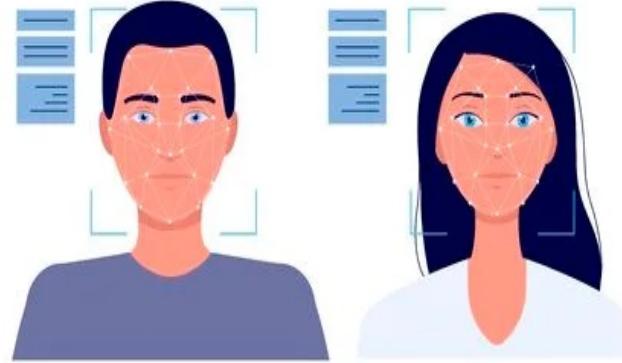
- 01** The Attendance of the person in the excel sheet.
- 02** Analyzing a person's feelings and recording them in an excel sheet with Attendance.



AI Challenges

- 01 Difficult to recognize someone wearing a mask.**
- 02 Identifying women who wear the Niqab is difficult.**
- 03 There is insufficient information**

AI Dataset



The Dataset With Face

It contains **31 classes**



The Dataset With Mask

It contains **13 classes**



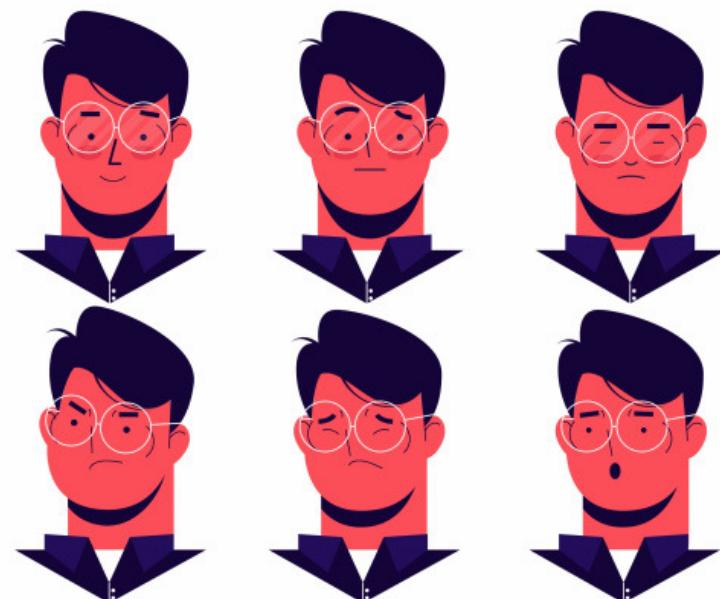
The Dataset With Niqab

It contains **9 classes**

Analyze the person's feelings

Load in the face emotional model provided by **Priya Dwivedi**
<http://www.deeplearninganalytics.org/>

- 01** The model was trained on **fer2013 labeled** face emotion image data set.
- 02** This model was used to receive from the camera the image and analyze the person's feelings.



— Design by All-free-download.com —

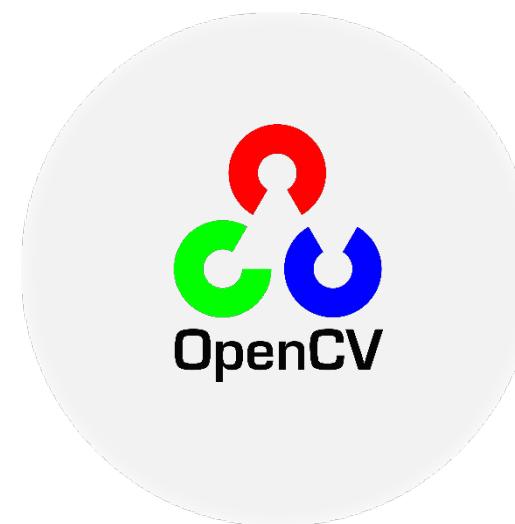
AI TOOLS



K Keras



TensorFlow



OpenCV



CO



Models Results



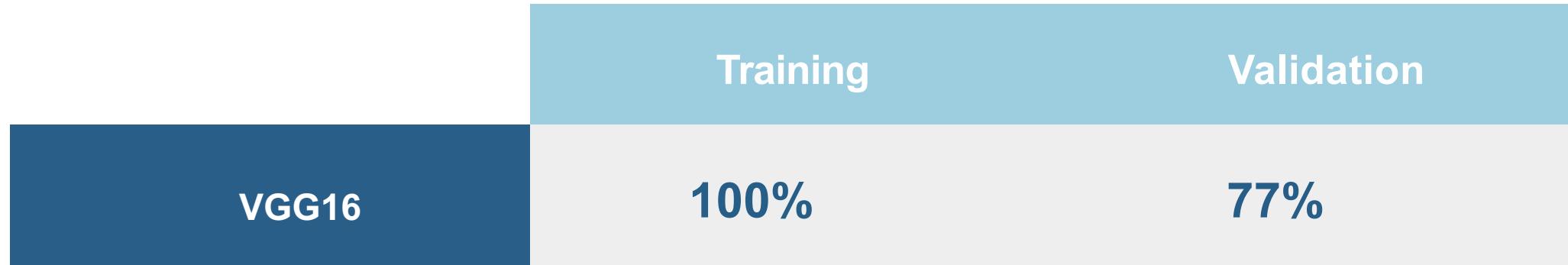
Model with Real Face



	Training	Validation
CNN FROM Scratch	99%	18%
VGG19	99%	60%
VGG16	89%	34%
FaceNET	99%	99%

Best Model : FaceNet

AI Transfer Learning Model with mask Face



AI Transfer Learning Model with Niqab Face



	Training	Validation
CNN FROM Scratch	100%	75%
VGG19	100%	66%
VGG16	100%	87 %

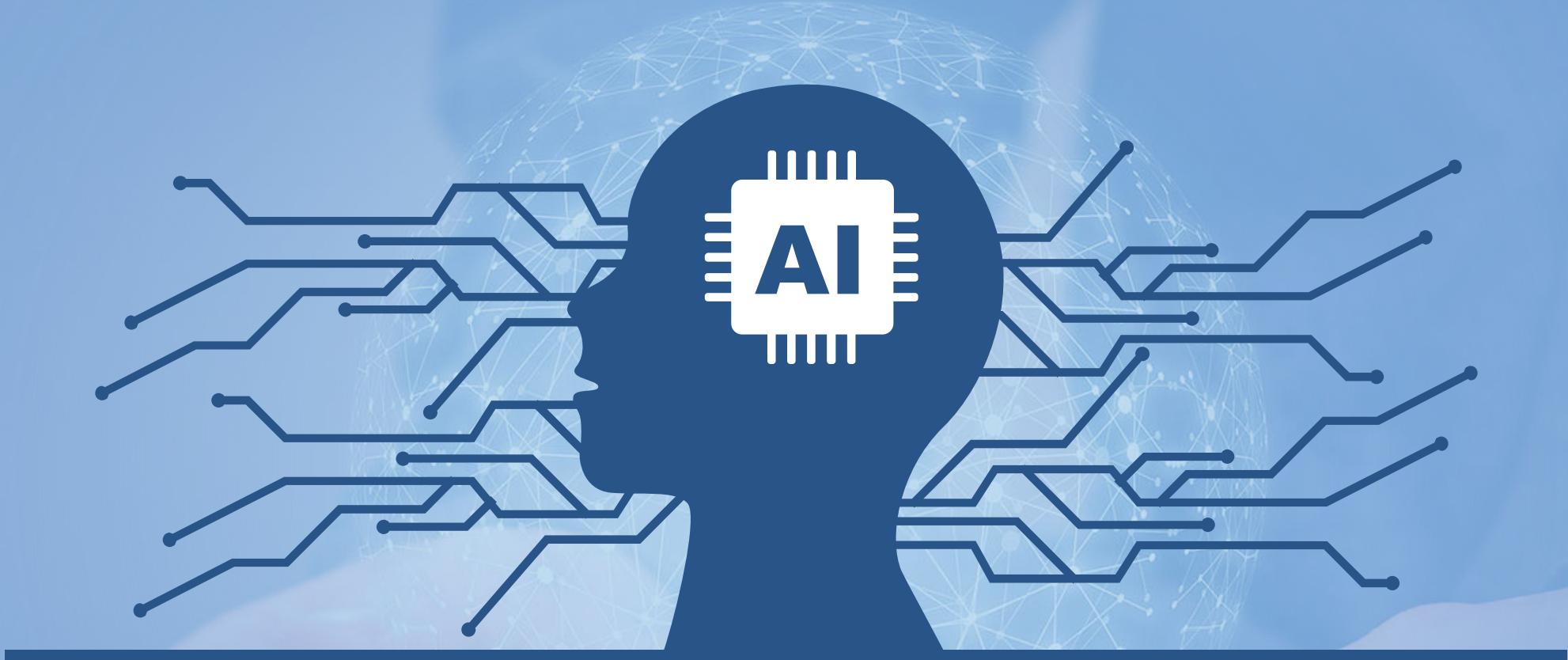


- 01** More data on the niqab and mask will be collected in order to improve performance.
- 02** We'll look at how a person interacts with others by looking at his activities.



Conclusion

01 The Best accurate facial recognition algorithm FaceNet model



Thanks , Any Questions