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Age Invariant Face Recognition System

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Abstract: ***The face is one of the easiest ways to distinguish the individual identity of each other. Face recognition is a personal identification system that uses personal characteristics of a person to identify the person's identity. Human face recognition procedure basically consists of two phases, namely face detection, where this process takes place very rapidly in humans, except under conditions where the object is located at a short distance away, the next is the introduction, which recognize a face as individuals. Stage is then replicated and developed as a model for facial image recognition (face recognition) is one of the much-studied biometrics technologies and developed by experts. There are two kinds of methods that are currently popular in developed face recognition pattern namely, Eigen face method and Fisher face method. Facial image recognition Eigen face method is based on the reduction of face dimensional space using Principal Component Analysis (PCA) for facial features.***
Keywords: Responsive, Accessing Games, mobile application, mobility, clear face recognition.

I. INTRODUCTION

Face recognition is the task of identifying an already detected object as a known or unknown face. Often the problem of face recognition is confused with the problem of face detection Face Recognition on the other hand is to decide if the "face" is someone known, or unknown, using for this purpose a database of faces in order to validate this input face.

A. Objective of the Project

The goal of our project is to create a mobile application which does not allow the children to play games.

1) The user interface of this system should be efficient, user friendly and maintain privacy.
2) This system can be used to allow the user whose age is above 18 to play games.

II. EVALUATION

A. Existing Model

In existing system digital image processing system has been implemented. To be suitable for computer processing, an image f(x, y) must be digitalized both spatially and in amplitude. Digitization of the spatial coordinates (x, y) is called image sampling. Amplitude digitization is called gray-level quantization. But it has some limitation.it captured and predict the particular position of face image features.it have some accuracy issues**.**

B. Drawbacks

Low accuracy. It consumes more time. Difficult to predict Implementation

C. Proposal System

In this proposed system the video or game is opened by face recognition. The captured images recognize with stored images then in that images we will recognize the faces of every person and according to that video or game will be open. The under 18 faces will be negated and If any person is above 18, then that person will be move to video or game. In the Application Guard, you can set limits for the apps of your choice. The "Temporary deactivation" option allows you to pause the blocking and monitoring of the EPCA application on a child device until you reactivate it or the app will automatically activate when the screen is turned off screen, which you will see when you open the app for the first time, you will have a choice between Child and Parent. If this is your device (parent), select Parent. If this is a child's device, select Child.

D. Features

1) User friendly
2) An airtight matching algorithm
3) Scalability
4) Predictive analytics
5) Built in privacy protection

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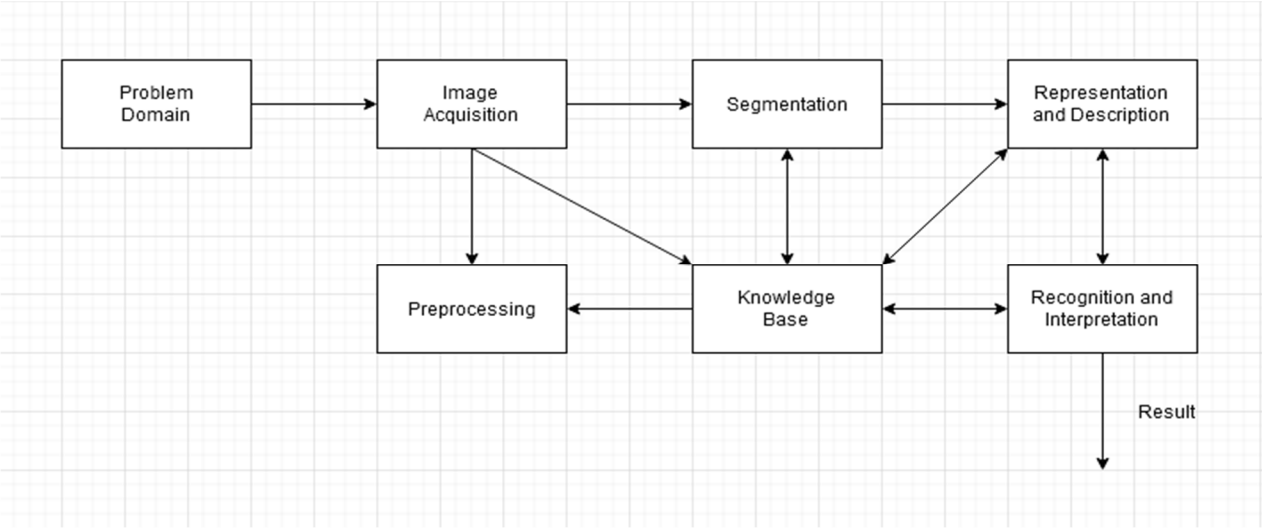

Fig 1.Block Diagram

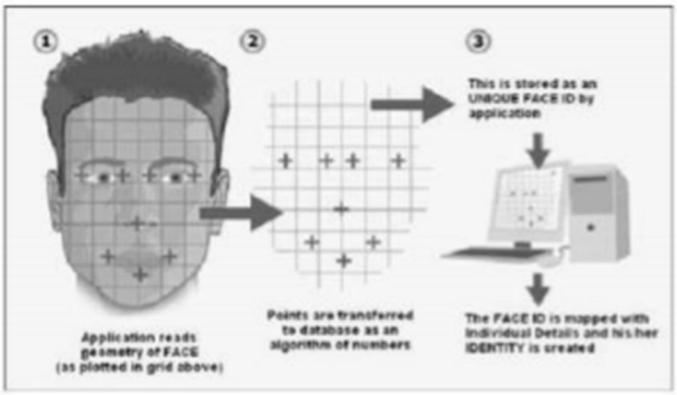

Fig 2. Face Recognition Diagram

III. FACE RECOGNITION

Face recognition is a personal identification system that uses personal characteristics of a person to identify the person's identity. Human face recognition procedure basically consists of two phases, namely face detection, where this process takes place very rapidly in humans, except under conditions where the object is located at a short distance away, the next is the introduction, which recognize a face as individuals. Stage is then replicated and developed as a model for facial image recognition (face recognition) is one of the much-studied biometrics technology and developed by experts. There are two kinds of methods that are currently popular in developed face recognition pattern namely, Eigen face method and Fisher face method. Facial image recognition Eigen face method is based on the reduction of face dimensional space using Principal Component Analysis (PCA) for facial features. The main purpose of the use of PCA on face recognition using Eigen faces was formed (face space) by finding the eigenvector corresponding to the largest eigenvalue of the face image.

A. Getting the Results

In the Application Guard, you can set limits for the apps of your choice. The "Temporary deactivation" option allows you to pause the blocking and monitoring of the EPCA application on a child device until you reactivate it or the app will automatically activate when the screen is turned off. screen, which you will see when you open the app for the first time, you will have a choice between Child or Parent. If this is your device (parent), select Parent. If this is a child's device, select Child.

IV. OUTPUT

Our experimental results proved that existing maturity rating policies are inaccurate and this framework can be used by auditors or parents to distinguish children Android Apps that should not be applied by kids under 12 years old.

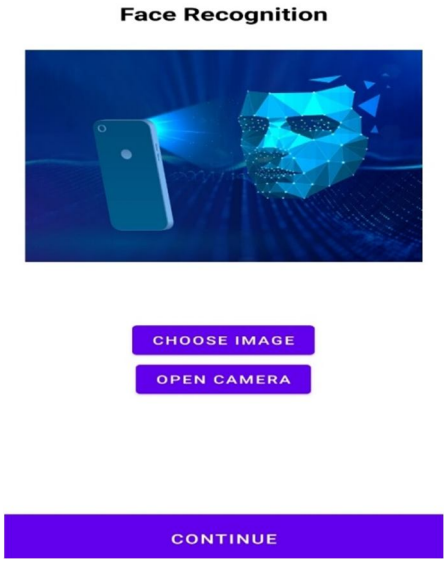

Fig 3.Face Recognition

The above figure (Fig 3.) shows the home page of this system where the image input has been recognized the user age can be above 18 or below 18.

Fig 4. User age above 18

The above figure (Fig.4) The user age above 18 this system will be allowed the user to play the games.

Fig.5.user age below 18

Above the figure (Fig.5) The user age below 18 so this system don't allowed the user to play the games.

V. CONCLUSION

This system detect when the children are playing games or not. The performance of this system is analysed manually by using chosen games which obviously contain improper contents. The results displayed that it can identify these Apps with high accuracy which reached 85.7%. Moreover, This framework to inspect 70 collected children Android Apps and found that 40% of them include inappropriate contents.

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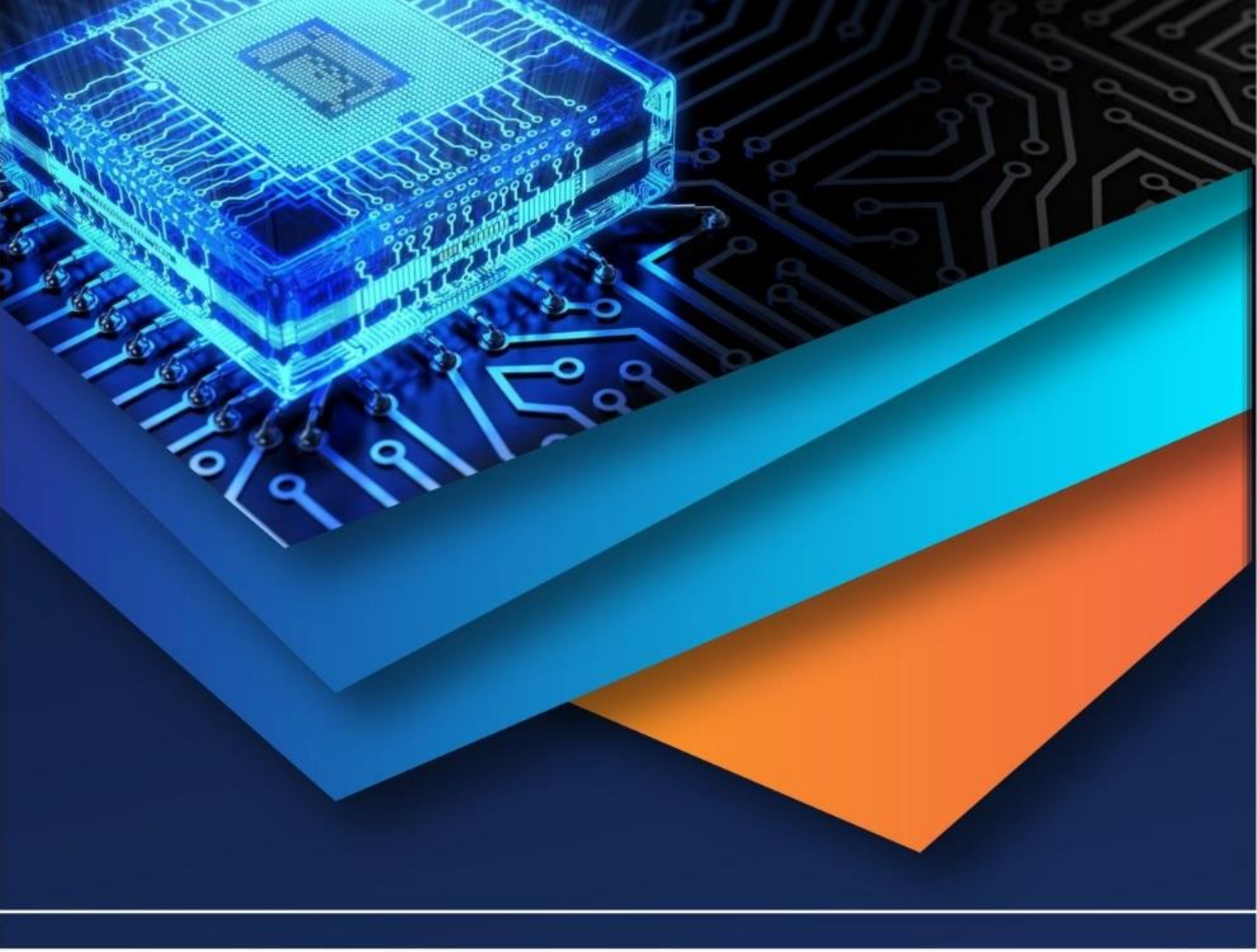

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