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ijirset@gmail.com



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A Survey on to Generate Exam System According to Authorized Face Student

Rohan Garad¹, Tushar Ekatpure², Prathamesh Avhad³, Sachin Godse⁴

U.G. Student, Computer Engineering, Sinhgad Academy of Engineering College, Pune, India¹

U.G. Student, Computer Engineering, Sinhgad Academy of Engineering College, Pune, India²

U.G. Student, Computer Engineering, Sinhgad Academy of Engineering College, Pune, India³

Assistant Professor, Computer Engineering, Sinhgad Academy of Engineering College, Pune, India⁴

ABSTRACT: At the moment, examining the exam papers and presenting the end-of-term results is a daunting task for educational institutions, colleges, institutions, departments and universities. The preparation of handwritten test papers is therefore very difficult and many counterfeit activities have taken place today. To simplify and more accurately the proposed goal of building automated paper testing software and grading system. In the field of education despite the teaching, research and performance of many organizations that started with the use of advanced technology. The method of testing test papers has changed although computer use wherever computer use is mandatory in all various analytical methods. The use of m-learning or other remote education continues to increase due to its ability to reach people who do not have access to campus. Tests are an important part of the education system and online learning program. In testing, a way to find and reduce the chances of cheating is very important to ensure that students have learned what is given. Various methods have been suggested to provide effective, comfortable testing for online testing.

KEYWORDS: Preprocessing, Segmentation, Feature extraction.

I. INTRODUCTION

Nowadays many people use images to represent and illustrate information by converting a digital image into a variety of activities in which the release of information through image processing techniques. Important details extracted from the photos are very popular. Image recognition is an important part of comprehensive application analysis. Examination is one of the most important aspects of a learning program, as well as an online learning program, it is no different. During the online test, the possibility of cheating will always be present. Therefore, prevention and detection of its occurrence are much needed. In a standardized test held in a designated environment, the test participant is operated by a classroom supervisor during the test, while in an online test, a reliable and inexpensive skill is required to convince the education provider of the student's learning outcome.

There are many software programs that help the trainer to do the exercises online. The general requirements they request for taking tests from anywhere in the system with a webcam and internet connection. However, they can only guarantee the integrity of their professional qualifications. That shows they are still relying on the process of monitoring human testing. Therefore, making the monitoring process work without compromising credibility and cost-effectiveness is a challenge discussed in this paper. The system proposed here uses a single webcam with microphone and internet connection. With these low requirements.

II. RELATED WORK

Digitized Exam Paper Evaluation Rajesh.R1, Kanimozhi.R2: Currently examining exam papers and presenting expired results is a difficult task for academic schools, colleges, institutions, departments and universities. The preparation of handwritten test papers is therefore very difficult and many counterfeit activities have taken place today. To simplify and more accurately the proposed purpose is to make automated test paper software and grading system. In the field of education despite the teaching, research and performance of many organizations that started with the use of advanced technology. The method of testing test papers has changed although computer use wherever computer use is mandatory in all various analytical methods. This paper is organized into different patterns such as offline, online and test paper by hand with different analyzes and techniques.



Continuous User Verification Project for Online Testing in M-Learning: Asep Hadian SG, Yoanes Bandung: The use of m-learning or other remote education continues to increase due to its ability to reach people who do not have access to campus. Tests are an important part of the education system and online learning program. In testing, a way to find and reduce the chances of cheating is very important to ensure that students have learned what is given. Various methods have been suggested to provide effective, comfortable testing for online testing. Start by using a complex test design for non-proctoring tests, remote webcam proctoring, machine-based proctoring and finally research with automated online proctoring. Visual verification throughout the test period is required for an online test, so face verification is required. The only problem left in the face area is the systemic stiffness of the contrast and lighting variations. In this paper, we have proposed a way to strengthen stamina and brightness by performing a growing training process using a set of training data obtained from online m-learning sessions.

Updating and comparing Kirti Dang face recognition algorithms, Shanu Sharma: With the huge expansion of the video and image database there is a great need for automatic understanding and data testing by smart systems as it is no longer available manually. To reduce it to a single background, one of the most unique things that can be traced back to photos by people i.e. faces. Face detection has become a challenge with its increasing use of a number of applications. It is the first step in facial recognition, facial recognition and the discovery of other facial features. In this paper, various face detection algorithms are discussed and analyzed such as Viola-Jones, SMQT and SNOW Classifier features, Neural Network-based Face Detection and Support Vector Machine-Based face detection. All of these face detection methods are compared based on the accuracy and memory value calculated using DetEval Software which deals with the price of binding boxes around the face to provide accurate results.

Face Recognition Based on Local Symbols: Yinghong Qiu¹, By Wan¹. Facial expression is the presentation of human emotions, which play an important role in a person's daily communication. Therefore, facial recognition (FER) has become a more important function in today's society. Currently most of the proposed face recognition methods use deep convolutional neural (CNN) networks in the form of supervised learning. In this paper, we try to answer two important questions. The first is that in human FER, what are the most important elements that make up a saying, if those factors exist? The second question is finding a way to increase the accuracy of FER. To date, we propose a new FER framework that relies solely on facial expressions. In this framework, in the training process, we begin by removing the world signals, and then feeding on a shallow network of recognition / segregation. We show that by using 68 global face points, it is possible to achieve the results of modern FER, thus opening the way for further study of the process of understanding human emotions. On the other hand, our framework also produces better results than standard CNN-based methods for faster use

Intelligent Online Monitoring System: Swathi Prathish, Athi Narayanan S, Kamal Bijlani Over the past few years, e-learning has become popular internationally due to its flexibility, availability and user-friendliness. As for online testing; a major challenge facing the research community is the printing methods used. In this paper, we present a way to avoid the presence of a champion throughout the trial by building a comprehensive multi-method system. We have used Hardware such as web-cam to record audio and video as well as active window scanning. This combination forms the input of a law-based understanding system that has the power to determine whether any wrongdoing has occurred. Examinee face is available and used to extract feature points thus limiting the shape of the head. Misbehavior is found based on variation of the yaw angle, the presence of noise and active window shooting. Our system has been tested in the e-learning environment and we have been able to make monitoring monitoring easier.

III. METHODOLOGY

3.1 System Architecture :

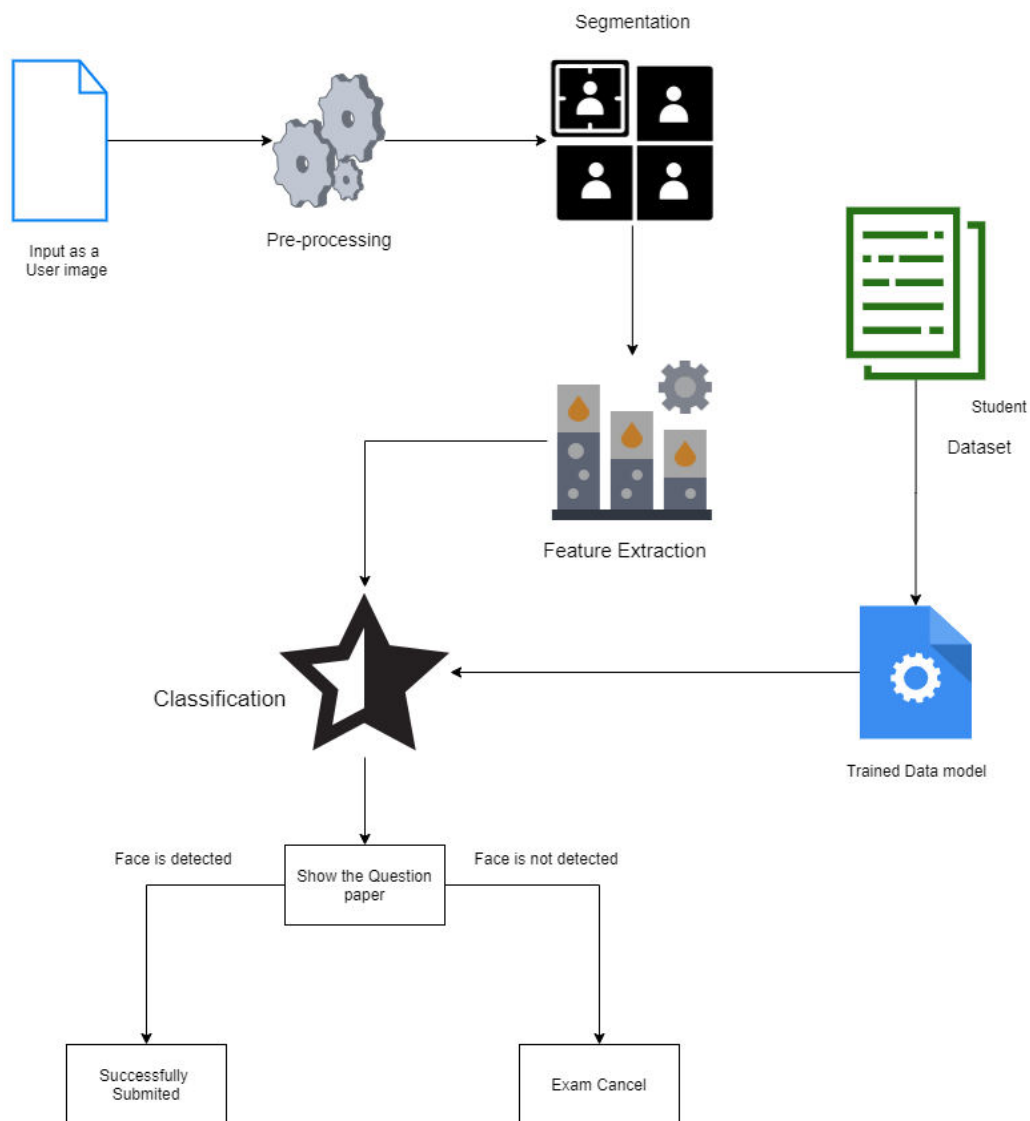


Fig 1: System Architecture

3.2 Image Extraction :

The extraction from relevant data through particular field and preprocesses the information in order to enhance data and eliminate noise. The characters are recognized by the extraction of field is nearby subsequent to the present analysis.



3.3 Pre_processing :

Stage Pre-processing step involves RGB to grayscale image alteration, noise removal, Thresholding etc. In RGB to grayscale picture conversion, RGB image is converted to gray image. Thresholding converts gray to black and white image. If needed the key document could be resized if needed.

3.4 Haar Cascade Algorithm :

Object detection using Haar feature-based cascade classifiers is a detection method proposed by . It is a Machine Learning based approach in which the cascade function is trained over a lot of positive and negative images and then used to detect objects in other images .Here in case of facerecognition, the algorithm requires a lot of positive images(images of faces) and negative images(images without faces) to train the classifier. Then the features are extracted from it. For this, haar features shown in the below image are used.

Each feature is a single value obtained by subtracting the sum of pixel values under white rectangle from the sum of pixel values under black rectangle. In order to solve each feature calculation that requires a lot of computation, a simple solution called integral images was introduced. It simplifies calculation of sum of pixels, to an operation involving just four pixels .Also among all the features we calculated, most of them are irrelevant. So we need to select the best feature out of these. For this, each and every feature is applied on all the training images.For each feature, it finds the best threshold which will classify the faces to positive and negative images.

Then the features that best classifies the face and non-face images with minimum error rate is selected .Still applying all the final features on an image to check if it is face or not is a little inefficient and time consuming.(Take each 24x24 window in an image) Hence the concept of Cascade of Classifiers was introduced in which instead of applying all the features on a window, the features are grouped into different stages of classifiers and applied one-by-one. If the window fails at any stage, it is discarded and no further stage is checked. Whereas, if it passes, the second stage of features is applied and the process continues. The window which passes all the stages is a face region.

3.5 Flask, Numpy and Pandas :

Flask is popular python web Frame work , which has extending feature ability to work with python basically used for developing web Application.

NumPy is a Python library used for working with arrays. It also has functions for working in domain of linear algebra, fourier transform, and matrices. It is an open source project and you can use it freely. NumPy stands for Numerical Python.

Pandas is a fast, powerful, flexible and easy to use open source data analysis and manipulation tool, built on top of the Python programming language.

IV. CONCLUSION

This survey focuses on enriching technology technologies within computer hardware and software components, the test pattern has changed dramatically like class class testing to online testing. The algorithm used in the test is the Haar Cascade face recognition algorithm. Online automated testing not only initiates pre-test and testing process although it provides more reliable and faster testing with more computer-based flexibility throughout the testing process.

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