

Automatic Evaluation of Answersheet And Marking System

Shubhanshu Pandey¹, Shivendra Singh², Tanveer Chougule, Shrinivas Chavan⁴, Prof. Chaitanya Bhosale⁵

Department of Computer Engineering
^{1,2,3,4,5} Dr.D.Y. Patil School of Engineering, India

Abstract- Only objective type questions are assessed and according to that marks are given to the student, in traditional Online Examination System. These technique lacks the capability of evaluating descriptive answers. To avoid such enormous amount of man hours for evaluation of examinations we are implementing this system. To develop off-line short answer automated assessment system which is capable of evaluating the descriptive answers using OCR, data mining and machine learning

Keywords- Text Mining, Automatic assessment, Machine learning, Examination System, Pattern Matching Teacher, Staff, Students, OCR.

I. INTRODUCTION

Large number of student attends the exam for that evaluation is required. In some cases Evaluations work is not in proper manner and time consuming. To avoid this problem automated evolution environment is developed. The main aim is to describe an automated answer marking system that can be utilized and improve quality of teaching and learning of the subjects Question paper is prepared by the teacher staff in the desired format and submitted to the appeared Candidates. Candidates give the exam and submit the hand-written answer-sheet to the teacher staff. The teacher staff collects the answer-sheet from student and submitted to the system with the help of scanning. In case of a system failure, the work is saved backup storage. The problem like Noise removing, Binarization, Rescaling, Edge Detection is solved by using OCR.

With the help of OCR, character get extracted which defines each character by the presence or absence of key features,. Pattern recognition plays important role in handwritten character recognition. With the help of pattern recognition evaluation of marks is done. This information is saved in the hardware like computer or laptop because of large storage device.

II. LITERATURE SURVEY

In [1] deals with taking scanned copy of a document as an input and extract texts from the image into a text format

using Otsu's algorithm for segmentation and Hough transform method for skew detection. The system was confined to recognize English alphabets (A-Z, a-z) and numerals (0-9). OCR technique has been implemented to recognize characters..

In [2], This paper presents detailed review in the field of OCR. Various techniques are determined that have been proposed to realize the center of character recognition in OCR system. OCR translates images of typewritten or handwritten characters into the electronically editable format and it preserves font properties. Different techniques for pre-processing and segmentation have been researched and discussed in this paper.

In [3], OCR becomes necessary first step for all applications that consider typewritten or handwritten manuscripts as input. We need to train our classifier in case if we are using data mining techniques for such purposes. There are several established generic classification techniques that can be used together with feature extraction mechanisms but it is important to know which of them do better under which circumstances. We evaluate three approaches for OCR from handwritten manuscripts and we also studied their results. We considered a case study where we need to identify cases with probability of dyslexia.

In [4]This paper aims to create an application interface for OCR using artificial neural network as a back end to achieve high accurate rate in recognition.The proposed algorithm using neural network concept provides a high accuracy rate in recognition of characters. The proposed approach is implemented and tested on isolated character database consisting of English characters, digits .

In [5], machine learning approach is used to solve this problem using text mining. Measuring the similarity between, words, sentences, paragraphs and documents is an important component in various tasks such as text summarization, information retrieval, automatic essay scoring, document clustering, and machine translation and word-sense disambiguation. JSON is used for transferring data between web application and server, serving as an alternative to XML in this system.

In [6], This paper represent an algorithm for implementation of OCR to translate images of handwritten or typewritten characters into electronically editable format by preserving font properties. By applying pattern matching algorithm, OCR can do this. The recognized characters are stored in editable format. Thus OCR make the computer read the printed documents removing noise.

III. SYSTEM REQUIREMENTS:

- Hardware Requirements:
 - Windows 64/32 bit system
 - Desktop Requirements:
 - RAM - 8GB
 - Processor i3/i5
 - Hard Disk – 500GB
- Software Requirements:
 1. Operating system: XP/7
 2. Database MySQL/H2
 3. IDE Tool: Eclipse

IV. CONCLUSION AND FUTURE SCOPE

In this paper, we presented different kind of variations in recommended systems proposed in various reference papers we explained the system architecture of various papers. We investigated the different types of techniques which are used automatic evaluation of answer sheet and marking system.

The view of project is to improve the existing Off-line Examination Evaluation by developing automated system that is capable of evaluating the descriptive answers.

For future work, we will try to this system can be adopted by all universities as well as level organizations and also overcome the drawbacks of current system.

ACKNOWLEDGEMENT

We wish to express our thanks to all who helped us directly or indirectly in making this paper. We are thankful to our project guide Prof. Chaitanya Bhosale for her valuable guidance. We also wish to thank our HOD. Prof.Soumitra Das and Director Dr. S.S. Sonawane for their kind Support.

REFERENCES

- [1] Neha Agrwal,ArashdeepKaur , An algorithmic approach for text recognition from printed/Typed text images,2018
- [2] Hiral Modi,M.C.Parikh A review on optical character recognition technique,2017
- [3] Syed Hasan tanvir, Tamim Ahmed Khan, Abu Bakar Yamin 2016, Evaluation of OCR algorithm and feature extraction technique
- [4] Mrs B wani , Ms. M. Shyni Beulah, Mrs. R. Deepalakshmi,2014,High accuracy optical character recognition algorithm using ANN
- [5] Pooja kudi,Amitkumar Manekar, Kavita daware,Tejaswini Dhattrak ,2014 ,Online examination using short text matching algorithm
- [6] Faisal Mohammad, Jyoti Anarase, Milan Shingote, Pratik Ghanwat,2014,Optical charater recognition using pattern matching
- [7] HimSubrataadri Nath Saha, Supratim Auddy 2017, Data extraction from exam answer sheets using OCR with adaptive calibration of environmental Threshold parameters.