“ HANDWRITTEN RECOGNITION AND EVALUATION ”

A STP Project Proposal Submitted by

Mr. R. Anandhan
Ms. B. Srimathi
Ms. R. Subakeshini

Submitted to

TAMILNADU STATE COUNCIL SCIENCE AND TECHNOLOGY

DOTE Campus, Chennai-600025

DEPARTMENT OF INFORMATION TECHNOLOGY

JERUSALEM COLLEGE OF ENGINEERING

(Autonomous)

Velachery Main Road, Narayanapuram, Pallikaranai, Chennai-600100.

E-mail id: jerusalemengg@gmail.com

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STUDENT PROJECT PROPOSAL

1.	Name of the student(s)	R. Anandhan B. Srimathi R. Subakeshini
2.	One e-mail id	raja.anand2k@gmail.com
3.	Name of the Guide	Mr. I. George Fernandez
4.	Designation Institutional Address Phone Number	Associate Professor & Department of Information Technology Jerusalem College of Engineering, Velachery Main Road, Narayanapuram, Chennai-600100 +91-8946047531, +91-9444351339
5.	Project Title	Handwritten recognition and evaluation
6.	Sector in which your project proposal is to be considered	Engineering & Technology
7.	Project Details	Enclosed (Pg.4-Pg.8)
8.	Has a similar project been carried out in your college/elsewhere? If so, furnish details of the previous project and highlight the improvements suggested in the previous one.	No

CERTIFICATE

This is to certify that Mr. R. Anandhan, Ms. B. Srimathi, Ms. R. Subakeshini are a bonafide final year student of U.G Engineering courses of our college and it also certified that two copies of utilization certificate and final report along with seminar paper will be send to the Council after completion of the project by the end of April 2021.

Signature of Guide | Signature of HOD | Signature of Principal
Head of the Institution

HANDWRITTEN RECOGNITION AND EVALUATION ’’

Abstract:

Automated evaluation of handwritten answers has been a challenging problem for scaling the education system for many years. Speeding up the evaluation remains as the major bottleneck for enhancing the throughput of instructors. This paper describes an effective method for automatically evaluating the short descriptive handwritten answers from the digitized images. Our goal is to evaluate a student’s handwritten answer by assigning an evaluation score that is comparable to the human-assigned scores. Existing works maily focused on evaluating handwritten essays, non-semantic features.

We, Introduce the usage of semantic analysis for auto-evaluation in handwritten text space using the combination of Information Retrieval and Extraction and Natural Language Processing(NLP)

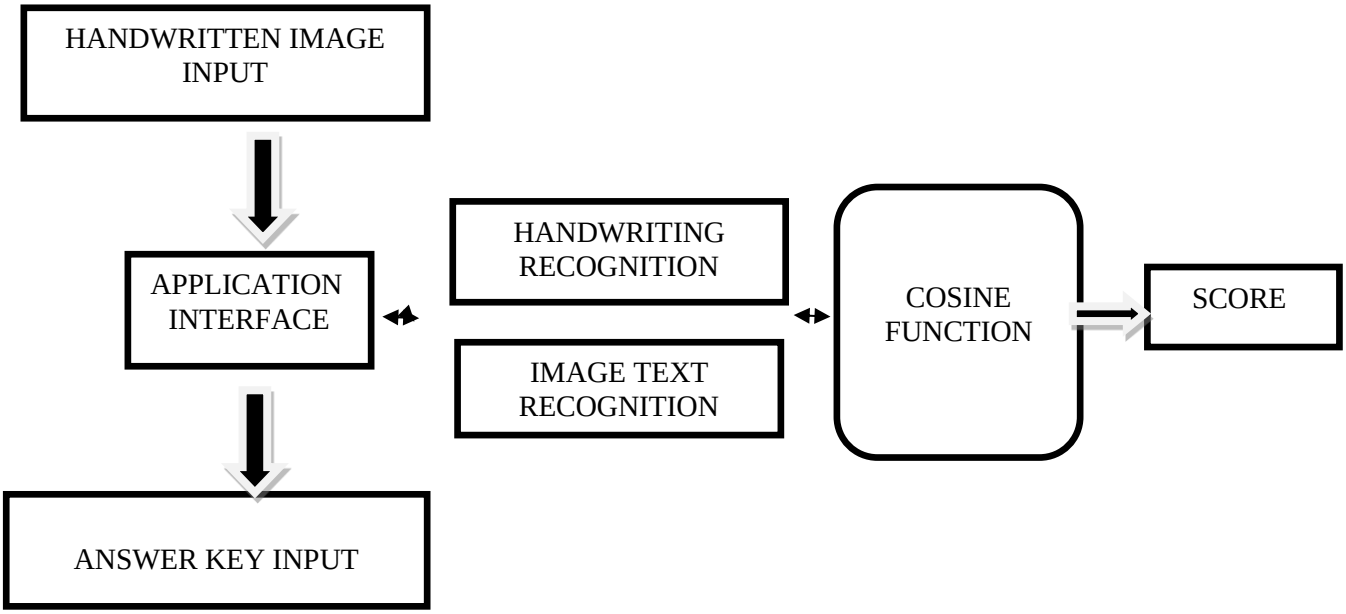
Introduction:

The manual system for evaluation of Subjective Answers involves a lot of time and effort of the evaluator. Performing evaluation through computers using intelligent techniques ensures uniformity in marking. We use Machine Learning and NLP technologies. Our Algorithm performs a task like Tokenizing words and sentences, Part of Speech tagging, Chunking, chinking, Lemmatizing words and wordnetting to evaluate the handwritten answersheet. Our system firstly extract the data from the scanned images in proper manner and Applying ML and NLP to the text retrieved from the above step and giving marks to them.

The main aim of the project is to ensure the online evaluation is much faster and clear method to define all the relevant marking schemes. It brings much transparency to the present method of answer checking. It is user friendly and more interactive application. The system can widely used in academic institutions such as schools, colleges, coaching and institutes for checking and evaluating answer sheets.

Methodology:

In this project methodology model takes the fundamental process activities of idea of application , design , development , execution and testing represents them as separate process phases using a agile model as a project development methodology. In this a methodology for feature selection for the handwritten string recognition is proposed. Its novelty lies in the use of a Machine learning algorithm where sensitivity analysis and neural network are employed to allow the use of a representative database to evaluate fitness and the use of a validation database to identify the subsets of selected features that provide a good generalization**.** Due to Specific system models, system architecture and detailed design of the project, to implement process using tool with Python language for developing the modules in windows platform. In the "Handwritten recognition and evaluation, the development of application requires the implementation of Machine Learning algorithms. A large number of experts in their field contribute to make the project a success.



SYSTEM ARCHITECTURE

Cost Estimation:

COMPONENTS	PRICE IN INR
Total	

Result and conclusion:

We demonstrate an automatic evaluation scheme for handwritten answers with performance comparable to human evaluation. As a first step towards fully automating the grading schemes, we believe our method can be an assistance to the instructors, leveraging on the recent developments in handwritten document processing space. Our framework integrates ideas from information retrieval, natural language processing, and feature-based word spotting for this task. On real answers from a classroom, it provides scores that corelate highly with the human evaluators. The method is aimed at short descriptive answers, and it meets this purpose.