

OFFLINE SIGNATURE VERIFICATION

Project report submitted to the Karpagam Academy of Higher Education in partial fulfillment of the requirements for the award of the degree of

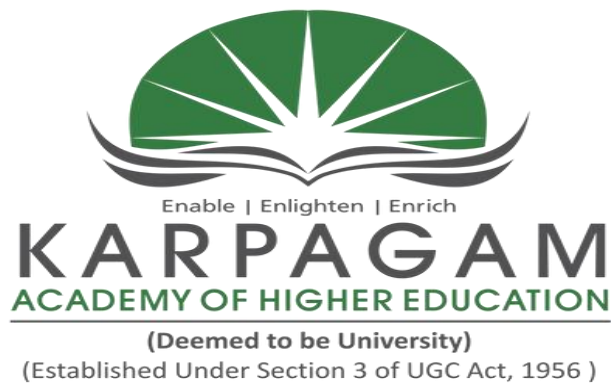
Bachelor Of Science in Computer Science

(COGNITIVE SYSTEMS)

Submitted By

SIVA R

21CGU048



Under the Guidance of

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KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University)

(Established Under Section 3 of UGC Act 1956)

(Accredited with A+ Grade by NAAC in the Second Cycle)

COIMBATORE-641021

MARCH-2024

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Bachelor Of Science in Computer Science

(COGNITIVE SYSTEMS)

BONAFIDE CERTIFICATE

This is to certify that the project work entitled **“OFFLINE SIGNATURE VERIFICATION”** done by **SIVA R (21CGU048)**, during the period December 2023 to March 2024 in partial fulfillment of the degree of B.Sc., Computer Science (Cognitive Systems) is submitted for the viva voce held on _____.

Project Guide

Head of the Department

Examiners:

1.

2.

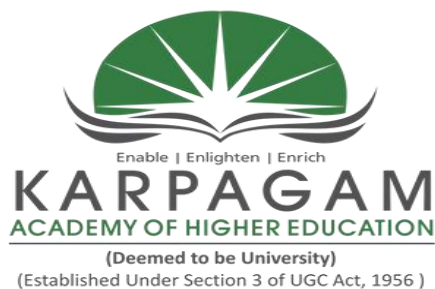
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CERTIFICATE

This is to certify that the project entitled **“OFFLINE SIGNATURE VERIFICATION”** is the bonafide project work carried out by, **SIVA R (21CGU048)**, student of BSc Computer Science (Cognitive Systems) submitted to the Karpagam Academy of Higher Education, Coimbatore, during the year 2024, in partial fulfillment of the requirements for the award of the Degree of Bachelor of Computer Science (Cognitive Systems), is the record of student’s own worked carried out by him under my supervision.

Place: Coimbatore

Signature of the Guide

Date:

DECLARATION

I hereby declare that the Project entitled “**OFFLINE SIGNATURE VERIFICATION**” submitted for the B.Sc. of Science in Computer Science (Cognitive Systems) degree is my original work.

Place: Coimbatore

Signature of the Student

ACKNOWLEDGEMENT

If words are considered as symbols of approval and tokens of acknowledgement, then the words play the heralding role of expressing my gratitude to all who have helped me directly and indirectly during my project work.

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ABSTRACT

The project is entitled “**OFFLINE SIGNATURE VERIFICATION**” it is developed by using MATLAB.

Automatic offline signature verification is basically a two-class pattern recognition problem. In offline signature verification, signature under test is checked for its genuineness by comparing it with its known genuine signature and classified as either genuine or forged. In this project some classifiers are designed to detect forgery in offline signatures and studied the effectiveness of various features with different classifiers were observed. In offline signature verification, a sufficiently large offline signature dataset is required. Signature samples in the data sets were English script, shapes and different styles. So we can process all languages signature. The English script is not mandatory because we have considered the signature image as shapes and styles format. In the datasets, there were both genuine and forged signature samples. Different classification techniques of pattern recognition is used to classify the signature samples present in the data set as genuine or forged signature. Here we have using some techniques for processing the signature.

CNNs algorithm used for feature extraction phase it will generate common pattern features from the given dataset and other data will be eliminated. The best feature where selected by the feature selection algorithm like filter method, wrapper method, embedded method. The final stage of verification will be done by the threshold technique. This technique is convert the normal image to binary image and analyse the image. There are three types of forgeries in automatic offline signature verification-random forgery, simple forgery and skilled forgery. Among these, skilled forgery is the most difficult forgery to detect. Because in skilled forgery, forged signatures are produced by a skilled forger after careful and rigorous practice of the signature. This project work aims in detecting skilled forgery.

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