PRESIDENCY UNIVERSITY
PRESIDENCY SCHOOL OF INFORMATION SCIENCE
MCA PROJECT 2025
ABSTRACT REVIEW FORM

Project No: 220	Name of Student: Aakash K	Section: 4MCA-05
Project Title: Fake Signature Detection		

ABSTRACT

Signature verification is essential for authentication and fraud prevention in banking, legal and identity verification processes. This project presents a Signature Matching System using Python, OpenCV, and Tkinter, providing an efficient way to compare handwritten signatures. Users can either upload existing signatures or capture new ones via a webcam. The system processes signatures using computer vision techniques, extracting key structural and textural features. A similarity algorithm compares the signatures based on an 85% similarity threshold—if the score meets or exceeds this value, the signatures are considered a match; otherwise, they are flagged as non-matching. A **graphical user interface (GUI)** built with Tkinter ensures easy interaction, allowing users to upload, capture, and analyse signatures effortlessly. The system enhances security by minimizing fraudulent activities and unauthorized access. Future improvements may include integrating machine learning models like **convolutional neural networks (CNNs**) for enhanced precision and adaptability. These models can improve the system's ability to detect forgeries by learning complex signature patterns. By leveraging computer vision and artificial intelligence, this project provides a practical, automated solution for secure and reliable signature verification, benefiting financial institutions, legal organizations, and other industries requiring robust identity validation.

1. **Keywords:** Signature Verification, Computer Vision, Authentication, Fraud Prevention, Machine Learning

Criteria	**Rating (1 to 5)**
Clarity of the Problem Statement	
Relevance of the Project	
Objectives	
Innovation and Originality	
Suitability for Research Publication	

Overall Assessment	**Comments**
Strengths of the Abstract:	
Weaknesses or Areas for Improvement:	
Recommendations	Approve ☐ Revise ☐ Reject ☐
Supervisor's Signature with Name	_____
Date:	_____