

WHITEBOARD CONTENT DIGITALIZER

Abstract

The "Whiteboard Content Digitalizer" project aims to solve the recurring issue of important information on whiteboards being lost after lectures, meetings, or brainstorming sessions. Whiteboards are a commonly used tool for presenting ideas visually, but once the session ends, the content is often erased without being properly recorded. Manual note-taking is both inefficient and error-prone. To overcome this, the proposed system allows users to upload images of whiteboard content—captured using smartphones or other devices—which are then processed and transformed into editable and shareable digital formats.

The main goal of this project is to develop an application that enables users to upload whiteboard photos, enhances the images for better clarity, and extracts text from them using Optical Character Recognition (OCR). The image processing will be handled using OpenCV, applying techniques like grayscale conversion, noise reduction, thresholding, and contrast adjustment. OCR will be performed using tools such as Tesseract to accurately recognize both handwritten and printed content. The extracted text can be edited or exported as plain text or PDF files. To ensure accessibility and ease of use, the project will feature a simple and interactive user interface, developed using Tkinter for desktop, or Flask/Django for web-based access, depending on the deployment preference.

The expected outcome is a practical and user-friendly tool that helps digitize whiteboard content quickly and accurately. This project can significantly reduce the manual effort required for documentation, enhance knowledge preservation, and serve as a valuable aid in both academic and professional environments.