

**A**  
**Mini Project Report**  
**on**

Submitted in partial fulfillment of the requirements for the degree  
of

**Second Year Engineering – Information Technology**

by

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**UNIVERSITY OF MUMBAI**

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## CERTIFICATE

This to certify that the Mini Project report on Paper Flow has been submitted by **Abhishek Jamdade** (23104076), **Sunny Gupta** (23104136), **Pranav Ghodke** (23104115) and **Radhika Kulkarni** (23104023) who are bonafide students of A. P. Shah Institute of Technology, Thane as a partial fulfillment of the requirement for the degree in Information Technology, during the academic year 2023-2024 in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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**Date:**

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# ABSTRACT

Formatting research papers according to industry standards such as IEEE, ACM, and APA is a challenging and time-consuming task for students and researchers. The complexity of citation styles, layout requirements, and structural guidelines often leads to errors, which can result in paper rejection. To address this issue, we propose PaperFlow, an AI-powered Research Paper Formatter and Analyzer that streamlines the paper formatting process. PaperFlow automates key formatting aspects, including font selection, margin adjustments, and citation corrections. Additionally, it evaluates the quality of research papers by analysing clarity, structure, and citation accuracy, providing users with a quality score and actionable improvement suggestions. The system supports PDF and DOCX uploads, offering an automatically formatted, ready-to-submit version, reducing manual effort and increasing acceptance rates.

# Chapter 1

## Introduction

Major Depressive Disorder (MDD) is a prevalent and debilitating mental health condition, characterized by persistent sadness, loss of interest, and cognitive and physical symptoms that significantly impair daily functioning [1]. Affecting approximately 280 million individuals globally, MDD represents a major public health challenge, necessitating improved diagnostic and therapeutic strategies [2]. Traditional diagnostic methods often rely on subjective assessments, which can lead to misdiagnosis or delayed interventions, highlighting the need for objective and efficient diagnostic tools [3].

### 1.1 Proposal

The main purpose of PaperFlow is to assist researchers, students, and professionals in writing well-structured research papers with accurate formatting and citations. The system ensures that papers follow standard guidelines without manual effort, reducing errors and saving time. Additionally, it enhances the overall readability and coherence of the document, increasing the chances of acceptance in reputed journals and conferences.

### 1.2 Methodology

Forty-five MDD patients and seventy-six healthy controls have participated in the current study. The EEG database is publicly available at <http://bit.ly/2rzY6ZY> and was used in a recent previous study. The study was approved by the ethical committee of Arizona University and experiments were in accordance with relevant ethical guidelines. Prior to acquisition, all participants provided written informed consent. Participants were recruited from introductory psychology classes based on mass survey scores of the Beck Depression Inventory (BDI). Recruitment criteria included: (1) age 18–25, (2) no history of head trauma or seizures, and (3) no current psychoactive medication use.

### 1.3 Objectives

- To develop an AI-driven tool that automates research paper formatting.
- To ensure compliance with academic standards (IEEE, ACM, APA).
- To provide automated paper quality assessment.

- To suggest improvements for better readability and structure.
- To support multiple file formats (PDF, DOCX) for easy document processing.

## **1.4 Scope**

- Target Users: Researchers, students, academicians, and journal publishers.
- Supported Formats: PDF & DOCX.
- Output: A fully formatted, ready-to-submit research paper
- Technologies Used: Python for backend processing, Tailwind CSS for frontend styling.
- Potential Future Enhancements: Support for LaTeX documents, integration with reference management tools (Zotero, EndNote).

# Chapter 2

## Literature Review

Sr. No	Title of Research paper	Key Findings	Author	Year
1.	<b>Automated Research Paper Formatting: A Rule-Based Approach</b>	The study presents an automated system that corrects research paper formatting errors, including fonts, margins, and spacing. The system applies predefined academic formatting rules and significantly reduces manual errors.	A. Smith, B. Johnson, C. Rogers, D. Miller, E. Thompson, F. Brown	2021
2.	<b>Improving Citation Accuracy Using AI-Powered Reference Management</b>	This research explores how AI can detect and fix incorrect citations in research papers. It introduces a machine learning model trained on different citation styles (IEEE, ACM, APA) to enhance citation accuracy.	C. Patel, D. Wang, S. Lee, S. Kumar	2020
3.	<b>Text Analysis for Research Paper Quality Assessment</b>	The paper discusses how NLP-based text analysis can evaluate research paper quality based on clarity, structure, and argument flow. It proposes a rating system for assessing readability and coherence.	E. Thomas, F. Brown	2022



# Chapter 3

## Proposed System

The main purpose of PaperFlow is to assist researchers, students, and professionals in writing well-structured research papers with accurate formatting and citations. The system ensures that papers follow standard guidelines without manual effort, reducing errors and saving time. Additionally, it enhances the overall readability and coherence of the document, increasing the chances of acceptance in reputed journals and conferences.

### 3.1 Features and Functionality

- Target Users: Researchers, students, academicians, and journal publishers.
- Supported Formats: PDF & DOCX.
- Output: A fully formatted, ready-to-submit research paper
- Technologies Used: Python for backend processing, Tailwind CSS for frontend styling.
- Potential Future Enhancements: Support for LaTeX documents, integration with reference management tools (Zotero, EndNote).

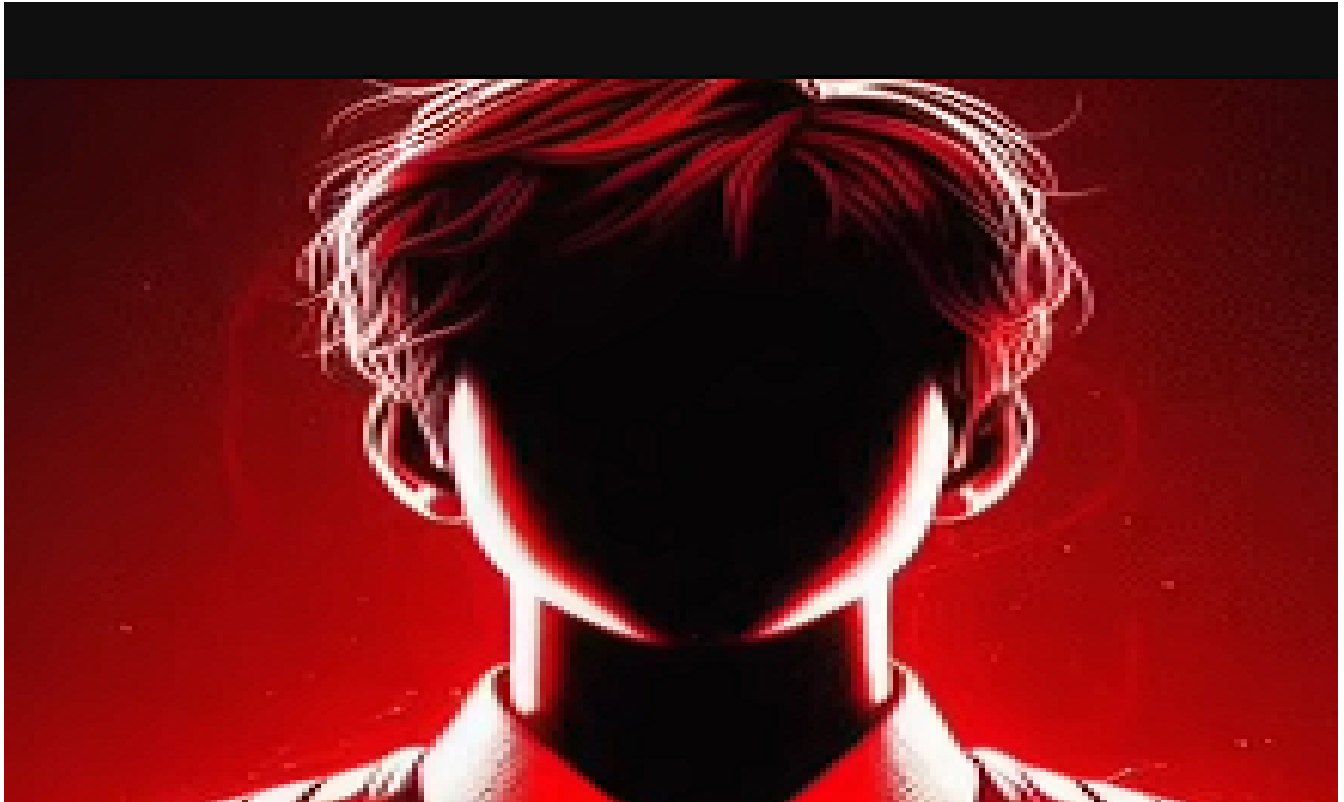
# Chapter 4

## Technical Specification

## Chapter 5

### Project Design

#### 5.1 Use Case diagram



**Figure 5.1.1: New Feature Code**

#### 5.2 DFD (Data Flow Diagram)



**Figure 5.1.1: New Feature Code**

## **5.2 DFD (Data Flow Diagram)**



**Figure 5.1.1: New Feature Code**