## **ABSTRACT**

The Employee Stress Management System is an advanced solution aimed at improving employee well-being and enhancing workplace productivity by monitoring and managing stress levels. This system uses data from employee login and logout times to identify patterns of overwork and potential stress, allowing HR managers to make informed decisions on workload distribution and recommend scheduled leaves to mitigate stress. Integrated with Power BI, the system provides real-time dashboards, offering clear visual insights into employee activities, workload trends, and overtime frequency. By leveraging data analytics, the system empowers HR teams to proactively address stress-related issues, ensuring a healthier work environment, reduced burnout, and sustained employee performance. This user-friendly platform not only enhances decision-making but also fosters a culture of care and support within organizations.

## TABLE OF CONTENTS

| CHAPTER |                             |          |
|---------|-----------------------------|----------|
| NO.     | TITLE                       | PAGE NO. |
| NO.     | ABSTRACT                    | IV       |
|         | TABLE OF CONTENT            | V        |
|         | TABLE OF FIGURES            | VII      |
| 1.      | INTRODUCTION                | 01       |
|         | 1.1 Overview                | 02       |
|         | 1.2 Problem Definition      | 03       |
| 2.      | LITERATURE SURVEY           | 07       |
|         | 2.1 Literature Survey       | 08       |
| 3.      | MATERIALS AND METHODS       | 12       |
|         | 3.1 Dataset Description     | 13       |
|         | 3.2 Development Environment | 14       |
| 4.      | SYSTEM MODEL                | 17       |
|         | 4.1 Preprocessing           | 18       |
|         | 4.2 System Flow Diagram     | 19       |
| 5.      | PROPOSED METHODOLOGY        | 20       |
|         | 5.1 Architecture Diagram    | 21       |
|         | 5.2Algorithm                | 23       |
| 6.      | SYSTEM IMPLEMENTATION       | 25       |
|         | 6.1 Dashboard Design        | 26       |

|    | 6.2 Data Management (SQL) | 27 |
|----|---------------------------|----|
| 7. | PERFORMANCE ANALYSIS      | 29 |
|    | 7.1 Evaluation Parameters | 30 |
|    | 7.2 Experimentals Design  | 31 |
|    | 7.3Discussion             | 32 |
| 8. | CONCLUSION                | 33 |
|    | 8.1 Conclusion            | 34 |
|    | 8.2 Future enhancement    | 34 |
|    | APPENDICES                | 36 |
|    | A.1 Sample Screenshots    | 36 |
|    | REFERENCE                 | 38 |

## LIST OF FIGURES

| FIG<br>NO | FIGURE DESCRIPTION                          | PAGE<br>NO. |
|-----------|---|-------------|
| 4.2.1     | Flowchart Diagram                           | 19          |
| 4.1.1     | Architecture Diagram of Employee Management | 21          |
| A.1.1     | Overtime Employees Notification             | 36          |
| A.1.2     | Email Notification                          | 37          |
| A.1.3     | Employee Overtime Analysis Dashboard        | 37          |